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**"Local Freights Are Consuming
Less Than Half The Time"—**

**.. Since installation
of "Union" C. T. C.**

SO WRITES a user of "Union" C.T.C. "In fact there is no delay due to meeting or passing of trains, a majority of the meets being non-stop for both trains. The fact that the train dispatcher controls the switches and signals at each end of each siding enables the dispatcher to instantaneously change a meeting point, so that delays are reduced to the absolute minimum, and changes can be made in an emergency that would be impossible with train order operation. I consider C.T.C. installation equal to, and in some respects better than, double track."

He mentions other advantages that his road has derived from installation of "UNION" C.T.C. Shall we tell you about them?

UNION SWITCH & SIGNAL COMPANY

SWISSVALE, PA.



NEW YORK

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RAILWAY AGE

Railway Wages and Government Loans

The queer views held in some quarters regarding the duties of railway management have been well illustrated by things that have been said recently about the movement for a reduction of wages.

Certain senators, especially LaFollette of Wisconsin, Wagner of New York and Wheeler of Montana, have said they will oppose legislation for additional government loans to the railways if the railways persist in seeking lower wages. It has been proposed that the Reconstruction Finance Corporation shall be authorized to make these loans, not merely to enable some railways to avoid bankruptcy, but also to enable them and others to increase their employment and buying. But why do some or many railways need government loans for such purposes as these Senators concede they do? Obviously, because both their gross and net earnings are too small. The last time the railways were offered and accepted government loans to enable them to increase their employment and buying was four years ago. Why do they now need them again for the same purposes?

It was claimed by the New Dealers then that recovery was under way and that the expenditure by the railways of money borrowed from the government would stimulate it. All these senators who are trying to make it a condition of further government loans that railway managements shall abandon their movement for a reduction of wages are New Dealers. In 1934 the advance of wages generally was one of the most important means advocated by them for promoting recovery; and wages have since then been advanced generally in industry and twice on the railways. The maintenance of wages is now one of the most important means favored by these same senators of promoting recovery. Their admission that the railways, because of lack of gross and net earnings, again need government loans is an admission that the means of promoting recovery they favored four years ago have been a failure. Why, then, should anybody believe they are right now?

Loans Versus Net Earnings

Public men, not railway managements, we believe, first suggested that the railways should again this year borrow from the government. But obviously the railways need an increase in net earnings far more than an increase in government loans. And obviously the

more they borrow the more they will need an increase of net earnings. Should not railway managements, then, try to increase their net earnings by the only means available? They tried to increase them by advances in rates; but the advances authorized by the Interstate Commerce Commission are inadequate. Although we are in a profound depression, railway wages, owing to the advances granted last year, are the highest in history. Is it not natural, having been disappointed by the rate decision, that the railways should now seek a reduction of wages? Or, although the wise senators admit net earnings are too small, do they believe railway managements should do nothing substantial to increase them? Without an increase in net earnings government loans would simply push the railway industry farther toward general bankruptcy. Plainly, therefore, railway managements should reply that they do not want any more loans if they can be secured only at the price of maintaining excessive wages and continuing to make ruinously low net earnings.

"Co-operation" and "Double Crossing"

Much was said by railway labor leaders during the negotiations last year about the "co-operation" they would give railway managements if wage advances were made. In a statement broadcast in the press last week the labor leaders illustrated the spirit of "co-operation" they have shown ever since. They made the palpably untrue statement that railway wages are among the lowest in industry; denounced railway managements for seeking to reduce wages in order to earn interest on bonds; charged the managements with "double crossing" them in starting the wage movement; and declared a strike would be the inevitable result of perseverance in it.

President Pelley of the Association of American Railroads immediately issued a statement refuting the charge of "double crossing" by the managements. But there has been "double crossing," and it has been done by the labor leaders. Before the wage advances last year there were negotiations with the labor leaders for a "legislative holiday;" and at least two documents were drafted to put the terms of an agreement in writing. No agreement was signed; but it was definitely understood there would be a period during which the labor leaders would not

push any more "make-work" legislation. Nevertheless, the leaders of the transportation brotherhoods subsequently worked as hard for the train limit bill as for any other legislation they ever sought; and finally the Railway Labor Executives' Association representing all the railway unions formally endorsed it.

Strikes and "Featherbed" Rules

The labor leaders' criticism of the managements for seeking reductions of wages in order to earn interest on bonds raises an interesting question as to just what they think is the duty, if any, of railway managements to security owners. They know that no man would ever be elected president of a railroad who announced in advance that he would put maintenance of the highest wages in all history above earning a return not only for the stockholders, but even for the bondholders. Do they believe, then, that after men have been elected presidents they can honorably do what before they were elected they tacitly but obviously pledged themselves not to do? The labor leaders say continuance of the wage movement will result in a strike. But capital as well as labor can strike; and private capital will strike against the railroad or any other industry which completely subordinates the *rights* of capital to the *demands* of labor.

It seems not improbable that continuance of the railways' wage reduction movement will lead to a strike, or at least to strikes on some strategically-located railways. But the nation-wide strike of shop employees in 1922 was such a complete failure that threats of nation-wide railway strikes do not cause as much apprehension as formerly. A strike would have the advantage of cancelling instantly on every railway involved the "featherbed" working rules now in effect that cause so much waste. Each railway that won it would be able to apply rules requiring every employee to do a full day's work for a day's pay. The "old heads," especially in train service, who are now drawing large compensation for working the equivalent of 20 days or less a month will think several times before they will vote for a strike that might deprive them permanently of the best paying jobs in proportion to time worked that there are in industry.

Why Railways Are Broke

The financial plight of the railways is mainly due to lack of traffic and gross earnings owing to continuance of the depression and the recent severe recession. An improvement in business increasing traffic and gross earnings to what they were before the depression probably would enable them to stand present high unit costs. Probably there will be some improvement in business in the near future; but real prosperity can never return under New Deal economic policies. If any business or industry is to remain solvent, its gross earnings, whether in a period of prosperity or depression, must

be divided in accordance with sound economic principles between management, labor and capital.

Because wages are so high now in a period of depression railway gross earnings are being divided in a perfectly indefensible manner between labor and capital. This is a result of railway managements having for years allowed themselves to be out-maneuvered, out-bullied and out-bluffed by the labor leaders. They have feared the effect of a strike on public sentiment. More recently they have feared that government would support labor in any struggle that occurred. Whatever their differences among themselves, labor leaders have usually stood together in wage movements, while the managements often have not. In consequence wages have almost constantly increased at the cost of return on capital.

Increased Efficiency, Railway Labor and Railway Capital

One measure—perhaps the best—of the efficiency of both management and labor is the number of traffic units (ton-miles and passenger-miles) produced per employee-hour, because output per employee is determined by the amount of investment per employee and by the way management and employees do their work. Statistics by five-year periods for the twenty years 1916-1936, inclusive, and for 1937, given in an accompanying table show there has been a steady and large

Railway Traffic Units and Hourly Wages Per Employee; and Return on Investment

Year	Traffic Units Per Employee-Hour	Per cent Increase over 1916	Average Hourly Compensation (cents)	Per cent Increase over 1916	Return Per \$1 of Investment (cents)	Per cent Decrease under 1916
1916 ...	89.8	...	28.3	...	5.90	...
1921 ...	101.0	12.5	66.7	135.7	2.90	50.2
1926 ...	117.8	31.2	63.1	123.0	4.99	15.4
1931 ...	123.4	37.4	68.9	143.5	2.00	66.1
1936 ...	152.0	69.2	69.1	144.2	2.59	56.1
1937 ...	155.0	72.3	70.9	150.5	2.27	61.5
Two Months 1938 ...	149.7	66.7	76.5	170.3	0.16	97.3

increase in output (traffic units) per employee-hour. Average output per employee-hour in 1937 was 72 per cent greater than in 1916. But the increase in average hourly compensation has far outstripped the increase in output per employee-hour. There was a large increase in hourly compensation between 1916 and 1921. In the latter year, and again in 1922, wages were reduced from the post-war peak reached in 1920. But in 1926, output per employee-hour was only 31 per cent greater, while average hourly compensation was 123 per cent greater, than in 1916. In 1936 output per employee-hour had increased 69 per cent over 1916, while average hourly compensation had increased 144 per cent. In 1937 output per employee-hour had, as already stated, increased 72 per cent over 1916, while partly because of the advances in wages in effect only part of last year, average hourly compensation had in-

creased 150.5 per cent. In the first two months of 1938 average compensation per hour showed an increase of 170 per cent over 1916 as compared with an increase of less than 67 per cent in output per employee-hour.

The effect on railway capital is shown by the figures given in the table regarding return earned per dollar of investment. This was 5.9 cents in 1916. It showed a sharp decline in 1921, a depression year. It increased to 4.99 cents in 1926. This, although much smaller than in 1916, was the largest return earned since the war. Return earned per dollar of investment in 1936 was 56 per cent less than in 1916, and in 1937 was 61.5 per cent less.

"Ability to Pay"

One of the achievements of the labor leaders has been that of getting what wages the railways can *afford to pay* almost ruled out of consideration. It has become their standard practice to cite the highest wages paid in other industries as standards for railway wages. But should not it be shown that the wages in other industries cited are not too high before they are accepted as standards for railway wages? And if wages in other industries should be used as standards, would it not be as logical to use those that are lower than railway wages as those that are higher? Many railways, especially in the south and west, directly and indirectly derive a large part or most of their earnings from the farmers. Why, then, should not the incomes of the farmers be used as measures of the wages that should be paid by railways serving agricultural territories?

The plain fact is that "ability to pay" determines the total *payrolls* that industry in general and the railroads in particular can meet, and that gross earnings determine how large the payrolls can be made and kept. Consequently, if hourly wages are made and kept too high in proportion to gross earnings, the effect is not to increase *payrolls*, but to reduce the number of persons kept on them.

The resulting reduction of employment involves loss, not only to those deprived of employment, but also to the industry making it and to the public as a whole, because it reduces the amount of needed productive work done.

High Wages Versus Production

Reduction of productive work reduces production and the national income, because the only source of production is work and the only source of national income is production. Hourly wages are higher in the United States now than they ever were before in industry in general and on the railroads in particular. If high wages increase labor's purchasing power and cause prosperity, why have we had the unprecedentedly severe recession of business during the last year, as a result of which this country is now deeper in depression than any other country in the world?

In spite of all contentions to the contrary, the plain fact is that high wages do not cause prosperity. What causes prosperity is a large production. When there have been done the things necessary to increase production, there result increases in payrolls due to employment of more people at increased wages made possible by increased production. If production and construction, and consequently railway traffic and gross earnings, had been fully revived the railways probably would be able now to pay present wages to 1,500,000 employees or 50 per cent more than they now have. But before they can become able to pay present wages to a much larger number of employees, there must be accomplished the increases of production, construction, traffic and gross earnings necessary to enable them to meet a much larger *payroll*. The needed improvements in business can be accomplished only by the managements of every business and industry in the country, including the railroad industry, doing the things which they know are necessary to increase net earnings and cause a large-scale revival of the investment of capital.

Noted Labor Economist Says That Excessive Wage Rates Block Recovery

In March, 1938, the average hourly wages of factory labor were nearly three times their amount in 1914. Meanwhile the cost of living had increased by no more than 40 per cent. Put in another way, the real hourly earnings (money earnings adjusted for changes in the cost of living) of factory employees in March, 1938, were 100 per cent greater than in 1914, 60 per cent greater than in 1920, and 40 per cent higher than in 1929. These are impressive figures, difficult to duplicate in any earlier period of so short a duration. They are, moreover, not peculiar to manufacturing industry. And they mean that we have ascended to a substantially higher level of real wages than has ever before prevailed in this country.

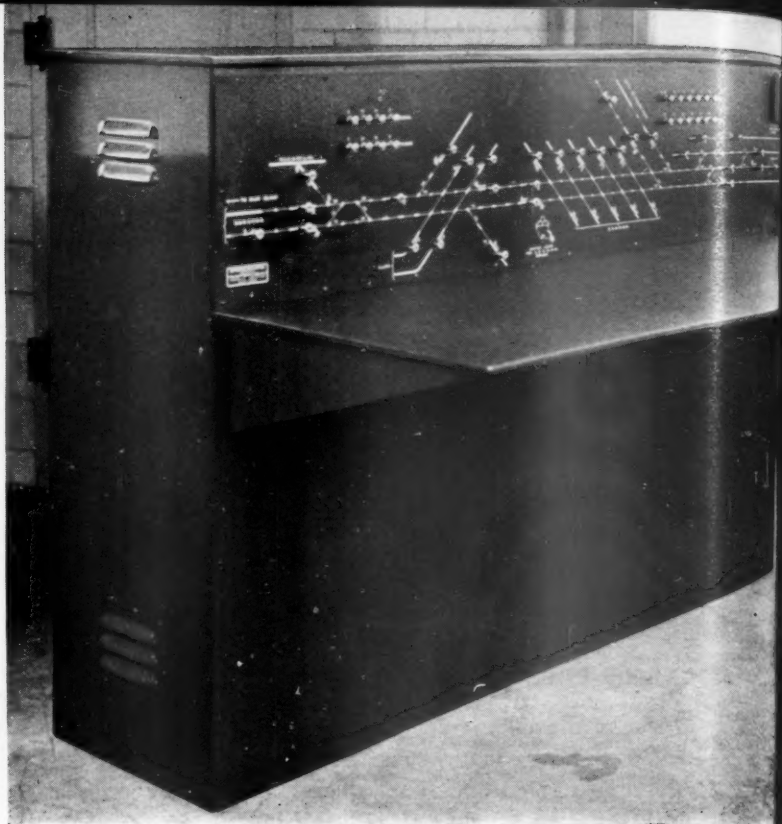
In the face of this record it is hard to see that much of

a case can be made for the doctrine that has so dominated our recent policy. The considerable advance in real wages has clearly failed to accomplish its purpose. Even at the peak of the last period of business expansion the volume of unemployment was exceptionally large, and since last Summer it has again almost doubled. While no doubt a variety of forces may be held responsible for both the continuing unemployment of 1936-37 and the obstacles to recovery at the present time, the conclusion is inescapable that an unsound wage policy is one of the most potent of them. If this is so, American workingmen can hardly be said to benefit from a policy that has contributed to keeping a substantial proportion of them wholly or partially unemployed and to reducing the aggregate payroll of industry.

Professor Leo Wolman, of Columbia University, in a Letter to the N. Y. Times

Switches and signals in a route are lined up by operating two push buttons, signal indications are shown in face of buttons, switch indications and track-occupancy indications are shown in track diagram

The Control Machine is Set at an Angle so that the Operator Has a Clear View of the Tracks. Below—The Capitol Limited Passing Through the Western Avenue Plant



Route Interlocking on B. & O. C. T.

AT a location near Western avenue and Fourteenth street in Chicago, the Baltimore & Ohio Chicago Terminal has installed an extensive new interlocking, a special feature of which is the application of a new type of route control rather than the conventional lever control. The control machine consists of a panel including an illuminated track diagram. On each of the lines representing the respective tracks, a push button is located at each point where a route may start through the plant. The operation of such a button initiates the setting up of a route, and subsequent operation of the same type of button at the location corresponding to the departure end of the route, completes the manipulation; following which the switches move to the proper positions, and the signal then clears.

Track Layout and Traffic

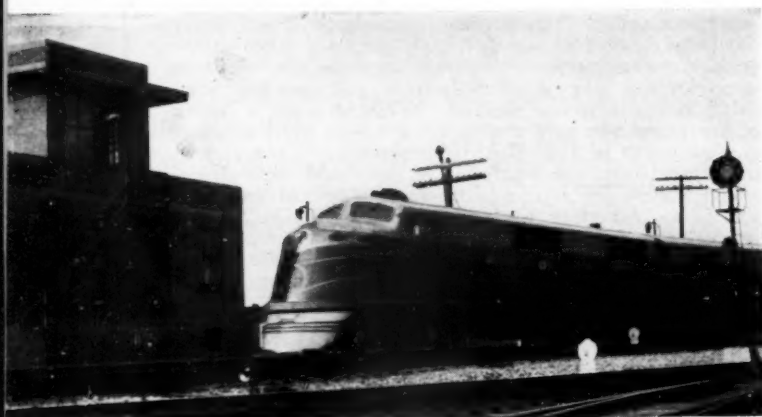
The track layout at this new interlocking includes a junction between a four-track line and a two-track line of the B. & O. C. T., a crossing of a double-track line of the Chicago Junction railway with a double-track line

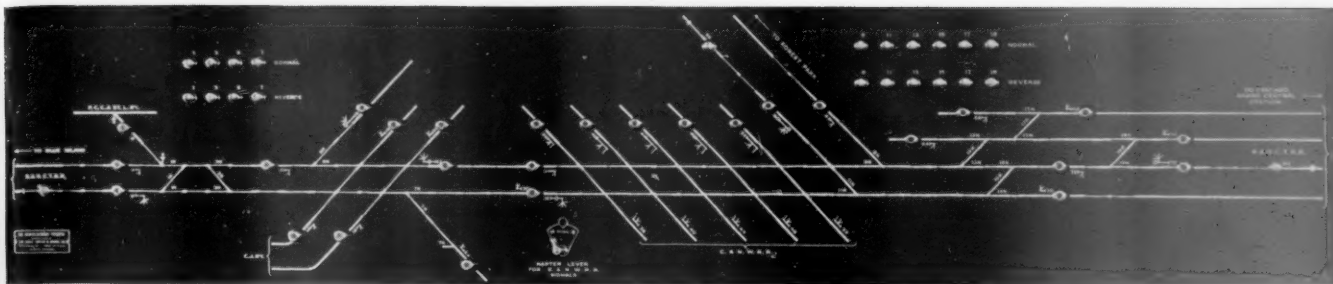
of the B. & O. C. T., and also crossings of five switch tracks of the Chicago & North Western with the double-track line of the B. & O. C. T. The home-signal limits include 6 crossovers, 4 single switches and 33 signals.

The B. & O. C. T. tracks through this interlocking are part of a main lead extending into the Grand Central Terminal, which is located 3.6 miles east of Western avenue. This terminal is used not only by passenger trains of the Baltimore & Ohio, but also by those of the Chicago Great Western, the Pere Marquette and the Soo Line. One or more freight stations of each of these roads are located between Western avenue and the terminal. All of the passenger trains operated in and out of the terminal, as well as switching movements to serve the freight houses and industries in this territory, pass through this interlocking and over the main line of the B. & O. C. T. in the territory between Western avenue and the terminal. Trains of the Baltimore & Ohio and the Pere Marquette use the double-track line diverging to the south at the Western Avenue plant. Trains of the Chicago Great Western and the Soo Line use the tracks extending westward through the plant.

In periods of normal traffic, as many as 1,200 movements are made over the plant daily. A total of 26 scheduled passenger trains are now operated daily through the new interlocking, and the roads mentioned above also operate about 166 through freight, transfer and switch runs through the plant daily. The Chicago Junction operates about 60 freight trains daily through the plant. The five tracks of the C. & N. W., which cross the double-track main line of the B. & O. C. T. in the plant, are yard lead tracks extending into a large fruit and produce yard just east of Western avenue. Switching moves are made over these tracks intermittently throughout each 24-hr. period.

Prior to the installation of the new interlocking, the switches were operated by hand, and train movements over the junction of the two B. & O. C. T. lines and



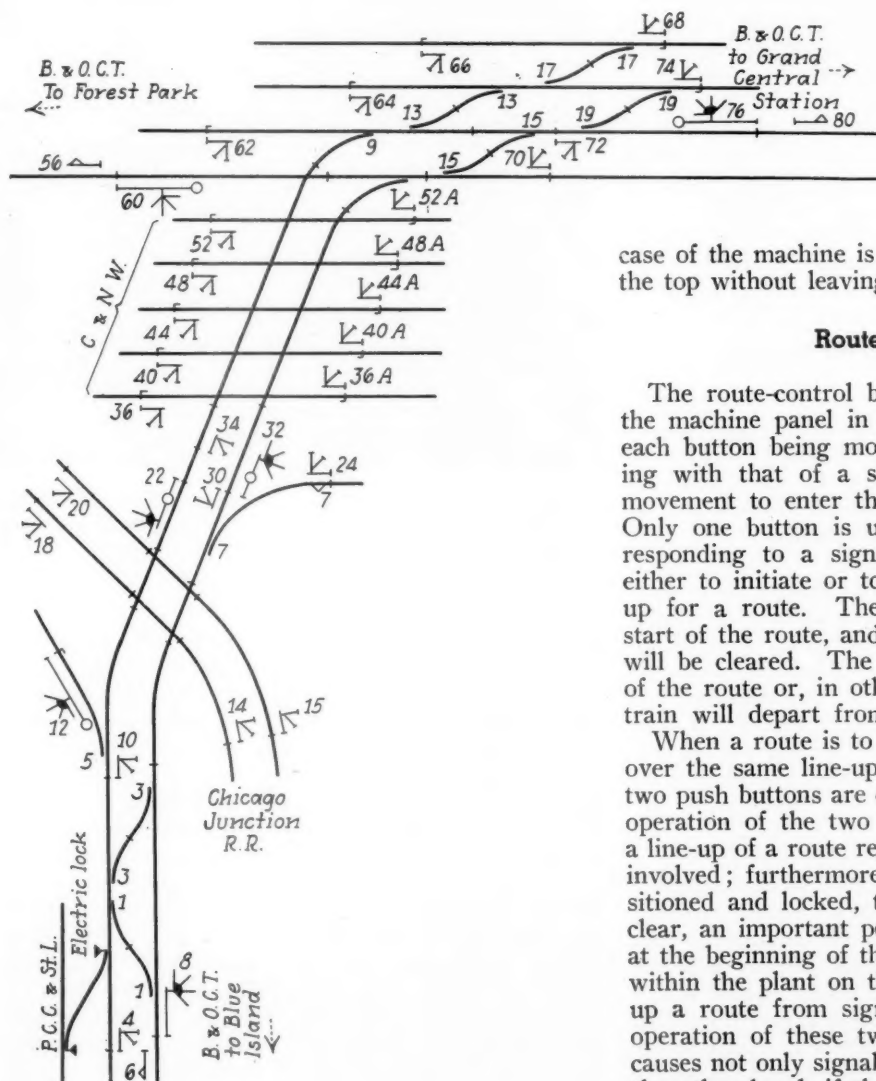


The Route-Control Buttons Are Located in the Face of the Machine Panel in the Lines Representing the Tracks

over the crossing of the C. & N. W. were directed by a set of mechanically-operated semaphore signals at a tower located just west of the C. & N. W. tracks and south of the B. & O. C. T. tracks. Two switchmen and one signal towerman were on duty each trick. Another tower, with signals, was in service at the crossing of the B. & O. C. T. and the C. J. All trains were required to make a safety stop as they approached the crossings, and to get a proper signal before proceeding. The purpose of installing the new interlocking was to operate the switches by power, and to protect the crossings so that the train stops could be eliminated.

This is the first installation of route-control interlocking using equipment manufactured by the Union

Switch & Signal Company. The trade name UR has been adopted as descriptive of the term Union Route interlocking. The face of the control panel is made of sheet metal and is 14 in. high and 5 ft. 8 in. long. The machine case is 45¼ in. high and 17 in. from front to rear. A desk, supported by brackets, is attached to the front of the machine just below the panel, this desk being 30 in. from the floor, 21⅜ in. wide and 5 ft. 8 in. long. The machine is located in the new tower on the upper floor, which consists of a single room with windows on all sides so that the leverman has a clear view of the tracks in all directions. The machine is set at an angle so that the leverman can see in all directions, except east, without turning his chair. As the



The Track Layout

case of the machine is only 45 in. high, he can see over the top without leaving his normal position.

Route-Control Buttons

The route-control buttons are located in the face of the machine panel in the lines representing the tracks, each button being mounted in the location corresponding with that of a signal which may govern a train movement to enter the plant or a section of the plant. Only one button is used at each of the locations corresponding to a signal. Such a button can be used either to initiate or to complete the control of the line-up for a route. The first button operated marks the start of the route, and thus determines the signal which will be cleared. The second button establishes the end of the route or, in other words, the track on which the train will depart from the plant.

When a route is to be set up in the opposite direction over the same line-up of tracks and switches, the same two push buttons are operated in reverse sequence. The operation of the two buttons completes the control for a line-up of a route regardless of the number of switches involved; furthermore, as soon as the switches are positioned and locked, the signal or signals for the route clear, an important point being that not only the signal at the beginning of the route clears, but also the signals within the plant on that route. For example, in lining up a route from signal 8 to departure button 70, the operation of these two buttons lines up the route and causes not only signal 8, but also signal 32, to clear. On the other hand, if the route was to be established only from signal 8 to signal 32, then these two respective

buttons would be operated, in which case signal 32 would not be cleared. Thus, routes may be established from signal to signal or through an intermediate signal to the end of the plant.

The buttons operate on the non-stick system of control, so that each button returns to normal position by spring action as soon as the operator removes his finger. The control set-up for a route is automatically cancelled by the passage of a train. Therefore, no further manipulation, comparable to lever restoration, is required of the operator. When it is desired to cancel a route manually, the push button which was operated first is *pulled* toward the operator. A call-on signal is displayed by re-establishing the route control in the same manner, when the route is occupied.

Signal Indication on Control Machine

Information concerning the aspects being displayed by a signal is indicated in each instance by lamps, which are mounted behind the corresponding push button, and which throw light through a lens located in the center of the button. Normally the lamps are extinguished. When the first button of a route set-up is operated, the indication lens in that button is illuminated to show red, which indicates that the route set-up is still incomplete and that the signal has not cleared. As soon as the route is complete and the signal clears, the indication in the button changes from a red to a green. This indication burns steadily when a high-speed, medium-speed or slow-speed signal clears, but the indication lamp flashes green when a stop-and-proceed, call-on signal is cleared.

The indication lamp in the button at the leaving end of a route ordinarily remains extinguished, but if an attempt is made to set up a route which is not available, a red light will appear in that button as an indication of improper manipulation. In such a case, both buttons must be *pulled* in order that the controls may be restored to their normal condition.

Special Control of C. & N. W. Signals

After the passage of a train on the B. & O. C. T. tracks, it is advantageous that switching movements on any or all of the five C. & N. W. tracks be started at once. In order to facilitate manipulation, one miniature-type, two-position lever was provided for the control of all of the 10 signals on the C. & N. W. tracks. The controls of these signals are non-automatic. Only one track circuit is employed on these C. & N. W. tracks to provide locking to prevent establishing a conflicting route. After these signals have been cleared, they remain so, independent of occupancy of any or all of the tracks on the C. & N. W. With this control arrangement, the C. & N. W. can continue to switch back and forth over the crossing with no further attention on the part of the towerman. When a through train is approaching on a B. & O. C. T. track, the towerman sets the C. & N. W. signals at stop as a warning for the C. & N. W. to clear the home-signal limits as soon as possible.

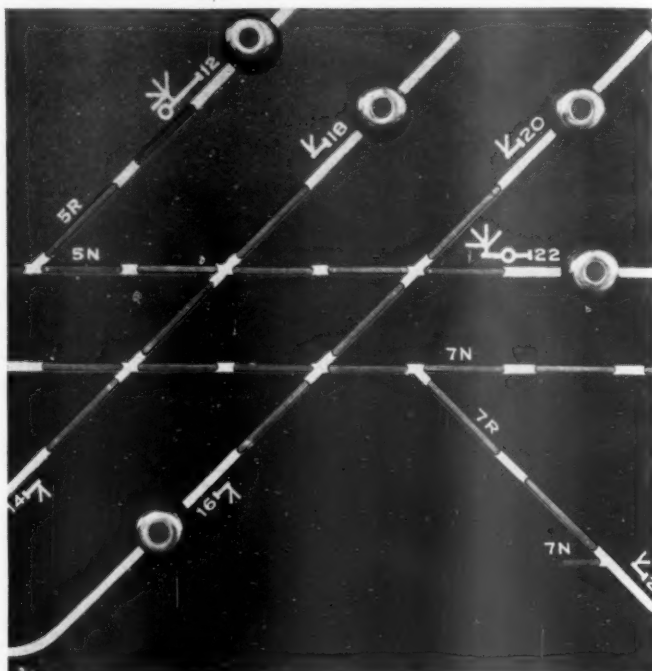
A situation might arise in which a switch engine, running light or with only a few cars, would approach on one of the C. & N. W. tracks at the same time that another switch engine with a long cut of cars was approaching on another C. & N. W. track. Time might be available for the light engine to move across the plant, but if the drag were allowed to proceed it might interfere with through trains on the other road. In order to meet such circumstances, a separate push-button control is provided for each track on the C. & N. W. If the

signals for only a certain track or tracks of the C. & N. W. are to be cleared, the separate push buttons for the corresponding tracks are used, as for example, push buttons 36, 40, 44, 48 and 52.

Route Indications

The entire track arrangement controlled from the UR interlocking panel is indicated by individual white lines representing the tracks. This track layout is on a steel front plate with a dull-black baked enamel background. The steel plate is cut out, and these cut-out places are filled by moulded translucent glass sections to represent the track circuits.

Two lights of different colors, one white and the other red, are located back of each section of track. This makes three indications available, one being the normal unoccupied condition, indicated by no illumination; the second being a white illumination, indicating the complete route as set up through the limits of the



Close-Up View of Small Section of the Control Panel Showing the Arrangement of Moulded Translucent Glass Sections Which Are Illuminated to Show Indications of Track-Occupancy and Switch Positions

interlocking, and the third being a red illumination of those sections as they are occupied by a train as it advances over the route. As the rear of a train clears the various sections of track, the indication on the track automatically becomes normal, without illumination.

Information as to whether each switch is in proper position and locked is indicated by means of short sections of the track diagram which represent the switch leads. Referring to the illustration of the track diagram, the section of the track line 7N is used to indicate the normal position of switch 7 and likewise section 7R indicates the reverse position. If any switch is not in proper agreement with the route set-up, established by operation of the route-control buttons, the short section of the diagram embracing the switch will remain dark until the switch moves into agreement. Sectional route locking is in effect to lock all functions, such as switches, in advance of a train and in the sections occupied by a train. As the rear of a train clears each track section,

the route locking is released in the respective section, so that other routes involving the section released can be lined up.

Individual Control of Switches for Test Purposes

When a switch is being tested or adjusted, its operation should be under the direct control of the towerman, entirely separate from the route-control system. Furthermore, when a layer of ice or a block of coal obstructs the operation of a switch point to prevent it from making its complete movement and from being locked up, separate individual control of each switch is necessary in order that the switch may be moved back and forth to crush the ice or coal. For the reasons outlined above, a set of individual switch control buttons is provided. The buttons for the control of the switches at the west end of the plant are located in a group in the upper left-hand section of the control panel, and those for the switches in the remainder of the plant are in a group in the upper right-hand section of the panel. These buttons are not located as a part of the track diagram, because they are not used in normal operation of the route-control system. Two buttons are provided for every switch, one to control the switch to the normal position and the other to the reverse. The circuits are so arranged that any existing set-up or route control must be cancelled before operating switches by means of the individual control. As a result, the operator cannot, inadvertently, by individual control, operate a switch in a route which has been established by route control.

This new Western Avenue interlocking was installed by the railroad's signal department forces, under the general jurisdiction of G. H. Dryden, signal engineer of the Baltimore & Ohio, and under the direct jurisdiction of G. P. Palmer, engineer maintenance construction, and C. O. Siefert, signal supervisor, of the B. & O. C. T. J. J. Clancy was the general foreman in charge of construction. The principal items of interlocking materials were furnished by the Union Switch & Signal Company.

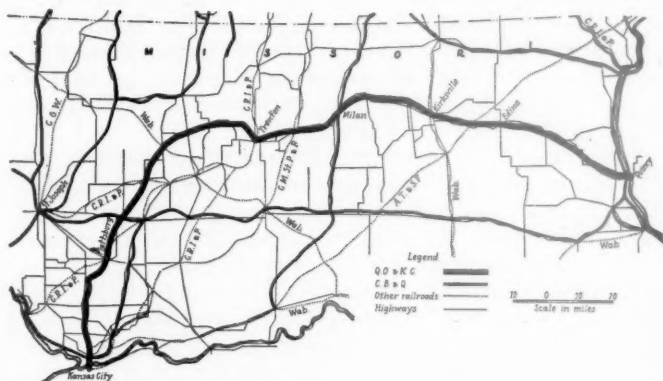
Quincy, Omaha & K. C. To Abandon Operation

BECAUSE of highway competition and inability to meet operating expenses, and because the Chicago, Burlington & Quincy is no longer willing to make up its deficit, the Quincy, Omaha & Kansas City, on May 19, asked the Interstate Commerce Commission for permission to abandon its entire line of railroad and the operation thereof. The Quincy, which extends from Quincy, Ill., to Kansas City, Mo., a distance of approximately 249 miles, has been unable to meet its operating expenses since 1921, even though it has no funded debt, has only 60,000 shares of outstanding stock, of which 59,988 shares are owned by the Burlington, secures its equipment from the Burlington and has much of its accounting and other work done by the Burlington road.

Although railway operating expenses have been reduced from \$1,408,347 in 1921 to \$421,326 in 1937, by means of various economies, the railroad has incurred a substantial deficit in each year since federal control, the aggregate deficit in net income for the 17 years being \$2,193,054. The Quincy, Omaha & Kansas City was able to operate during this period only because the Burlington advanced funds in each year to make up the deficit, and certain amounts for additions and better-

ments, the total advances during the 17 years being \$2,542,323. In none of the 17 years has the Burlington received any dividends from the Quincy. Now the Burlington, on account of its own financial condition, declines to make up further deficits incurred by the Quincy.

"In view of the progressive loss of traffic to motor carriers," the application sets forth, "and the dwindling traffic given the applicant, it is obvious that the public does not need the applicant's line enough to justify its continued operation, and that public convenience and



necessity will permit its abandonment. Moreover, in view of the record of annual deficits over a period of 17 years, in spite of substantial reductions in operating expenses, it is manifest that the applicant cannot continue to operate its line of railroad, but must go out of business."

Of the 249 miles of line operated, 244 are owned outright by the applicant and the balance is operated under trackage rights. The line extends through a territory that is sparsely populated; of the 46 towns on the railroad, only 9 have a population of 1,000 or more. Most of these latter towns are served also by other railroads.

Agricultural products are the chief commodities moved out of the territory and in its early days the Quincy was an important feeder to the Burlington. However, although the number of farms remained about the same from 1925 to 1935, there has been a steady decline in crop acres, a decided decline in the area of corn and leguminous crops, a large increase in pasture land, and a decrease in live stock. These conditions have resulted in a decrease in railway operating revenues from \$1,306,819 in 1921 to \$350,577 in 1937, although the management has made efforts to encourage and develop agricultural products, including co-operation at various times with the Missouri College of Agriculture, as well as with the people in the territory, in programs to encourage farming.

The Quincy, Omaha & Kansas City is made up of four separate lines of railroad which were built originally by the Quincy, Missouri & Pacific; the Chicago, Kansas City & Texas; the Omaha, Kansas City & Eastern and the Kansas City & Northern Connecting railroad. Each of these companies had an unfavorable financial background. Receiverships and bankruptcies characterized their history from the beginning of the first company, the Quincy, Missouri & Pacific, in 1869, until they were consolidated in 1902. Since that year the Quincy, Omaha & Kansas City has given continuous service, and there have been no interruptions by reason of financial difficulties because the Burlington has advanced money to make up deficits, the total amount so advanced since 1902 being \$3,200,181.

M. of W. Employees One Craft — Except

ACCORDING to a decision made public on April 7 by the National Mediation Board, all maintenance of way employees on the Delaware, Lackawanna & Western must be considered as one craft or class for the purpose of representation under the Railway Labor Act, and one ballot must be spread among all of these employees to afford them an opportunity to indicate their choice of representatives. This decision came about as the result of a complaint made to the Mediation Board by the Brotherhood of Maintenance of Way Employees, involving a dispute between the different classes of maintenance of way employees on the road as to who were to be recognized as their accredited representatives in accordance with the Railway Labor Act.

According to the testimony presented in the case, the maintenance of way employees of the road, as they were first organized for collective bargaining purposes under the United States Railroad Administration in November, 1919, grouped maintenance of way foremen, mechanics, helpers and laborers in one craft or class. In 1921, after the roads were returned to private ownership, the employees of the road were given an opportunity to break up this craft arrangement of representation to the extent of separating foremen and assistant foremen into a group of their own, but by a decisive majority the foremen voted to continue the existing arrangement of being represented by the Brotherhood as one craft or class with other maintenance of way employees. As a result, the railway entered into an agreement with the Brotherhood on this basis, which agreement was confirmed by the United States Railway Labor Board.

Subsequently, with the co-operation of the railway company, various groups of maintenance of way employees expressed a desire to be represented independently of the craft as a whole as set up, and formed their own independent organizations to this end. As a result, at the time the dispute in question was taken before the Mediation Board, the maintenance of way craft on the Lackawanna, as originally constituted under the United States Railroad Administration, was split into the four following groups of employees:

- (1) Roadway and bridge and building laborers and watchmen.
- (2) Roadway foremen and assistant foremen.
- (3) Bridge and building mechanics, helpers and others.
- (4) Bridge and building foremen and assistant foremen.

In the testimony presented, it was brought out that the first three groups were covered by agreements with the company, but that the fourth group has been without representation for the purpose of the Railway Labor Act, and also without any agreement with the company. In spite of the favorable action taken by certain of the groups for separate representation, the board held that the splitting of the craft was brought about mainly through "the persistent efforts of the carrier rather than by independent choice of the employees" and that the roadway assistant foremen and bridge and building foremen and assistant foremen were separated without being afforded any opportunity to express their choice in the matter.

The testimony also brought out that the carrier participated in carrying out the elections which resulted in the separate organizations on the road, and also contributed financially to the various groups by paying wages to their officers while they were attending to the business of the employees' organizations in dealing with the man-

agement. This latter practice the board held to be a violation of the present Railway Labor Act.

The major contention of the railway company, which was represented at the hearing before the Board, was that foremen were "supervisory" employees and should not, therefore, belong to the same labor organization as mechanics and laborers. It also insisted that, in spite of testimony which indicated that the practice of recognizing and treating with all maintenance of way employees as one craft or class is almost universal on the railways of the country, the practice on other roads is not controlling, and cited in support of its argument a decision of the Circuit Court of Appeals, Sixth Circuit. It also cited several cases in which it alleged that the Mediation Board had certified representatives of separate groups of maintenance of way employees. The Board took issue with the cases cited and insisted that the practice on the Lackawanna was not in accordance with the spirit of the amended Railway Labor Act, Section 3, wherein, it held that Paragraph (a) authorizes only organizations "national in scope" to have representatives on the National Railroad Adjustment Board, to which all disputes involving the interpretation or application of agreements are referable, and wherein it mentions only the one craft or class of "maintenance of way men" in providing that their cases shall be heard by Division II of this Board.

The decision of the Mediation Board in this case was worded as follows:

Upon the whole record and the findings of fact above enumerated, the National Mediation Board concludes that all the maintenance of way employees involved in the present dispute constitute one craft or class for the purpose of representation under the Railway Labor Act. One ballot must, therefore, be spread among all these employees to afford all of them an opportunity to indicate their choice of representatives. A mediator will be assigned to conduct the election accordingly.

Water Service Employees

According to another ruling handed down by the Board on April 26, water service repairmen, at least on the Wabash, are to be considered sheet metal workers, and not maintenance of way employees, in the matter of employee representation. As such, the Board orders that they be represented by the Sheet Metal Workers International Association, and not by the Brotherhood of Maintenance of Way Employees.

The decision in this case came about when the Sheet Metal Workers International Association demanded the right to represent employees on the Wabash engaged in the repair of the water service facilities, while the Brotherhood of Maintenance of Way Employees insisted upon the right to represent at least all foremen who supervise the work of the water service employees.

In the testimony submitted, it was brought out that whereas water service repairmen on the road, prior to the termination of Federal control, and up to the summer of 1922, were recognized consistently as part of the sheet metal worker's craft or class of railway employees, they have not had since that time any representation for the purpose of collective bargaining. Water service foremen, on the other hand, have been represented by the Brotherhood of Maintenance of Way Employees.

The railroad company held that water service repairmen should be represented by the same organization that represented other maintenance of way employees, and that the duties of its water service repairmen were no different from the duties of such employees on the

(Continued on page 918)

Hot Box Preventive Measures on the Milwaukee

Notable improvement in both lubrication and maintenance indicated by almost trebling the miles per hot box during the past decade

By H. G. Miller and L. E. Grant

Engineer of Tests and Chief Chemist, respectively, C. M. St. P. & P.

CAN the number of hot boxes on freight and passenger cars be reduced? If so, how is this to be accomplished? These are important questions to all railroads because hot boxes result in an increased cost of operation that is far from negligible. In addition they cause delays, whether they occur on freight or passenger cars, that result in dissatisfaction to railroad patrons. Consequently any reasonable and economical means that will appreciably reduce hot boxes is certain to prove a good investment. In recent years considerable attention has been given to the hot box problem, not only by the railroads but also by research laboratories of the large oil refineries. As a result of this research there has been developed a clearer conception of the relationship between the factors involved in car lubrication and better car oils produced.

The improvement in lubrication has been reflected by a reduction in the number of hot boxes. However, there is still much to be learned about car lubrication and it is probable that considerable improvement can be made with even the relatively simple means that are used almost universally for lubricating all cars except those equipped with roller bearings. There is not yet available an ideal lubricant, one that will function satisfactorily in the heat of summer as well as in the sub-zero temperatures of our northern winters. Nor is the journal-box packing entirely satisfactory. It becomes glazed, loses its resiliency and capillarity. Sometimes it sticks to the journal and causes a "waste grab."

The journal boxes, too, have their share of defects. The lids do not always remain tight, dust guards become warped and worn so that dirt and water can enter the journal box. It is not surprising under the circumstances that there are hot boxes. Probably more, rather than fewer, ought to be expected. Yet, when they are figured to thousand car-miles per hot box, the record is not entirely unimpressive. It is believed by the authors that hot boxes are not basically due to the relatively simple method of lubrication but rather to the use of unsuitable oils and waste and inadequate maintenance of the equipment. If this be true then some of the steps that must be taken to reduce the number of hot boxes are obvious.

We do not, at the present time, know what percentage of hot boxes is due entirely to the factors involved in lubrication. Many hot boxes are due to mechanical failures which are familiar to all experienced car men and do not require any particular attention in this article. The remedies are strictly mechanical and usually fairly obvious. Hot boxes, due to faulty lubrication, however, are not subject to simple analysis to determine the causes. Frequently the materials involved have been destroyed by fire by the time the car has

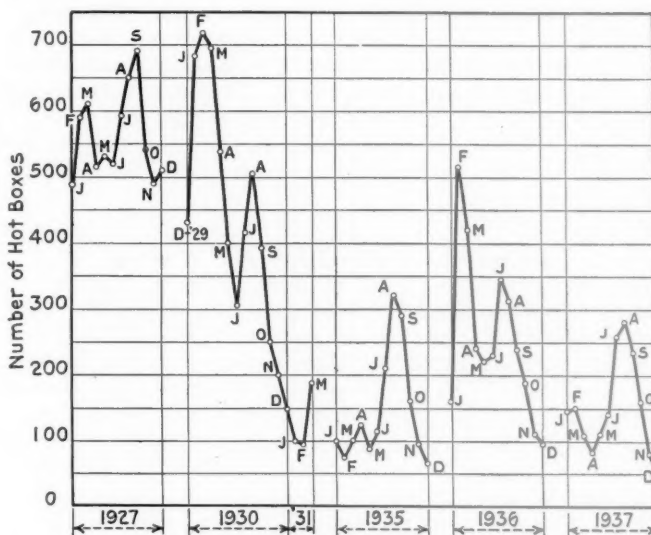


Fig. 1—Hot Boxes on Milwaukee Freight Cars

been set out and an investigation can be made. Each railroad, therefore, has formed its own ideas as to the causes of hot boxes on its system and has selected materials and methods for lubricating its cars which it believes best adapted to meet existing conditions.

There is a wide difference of opinion as to the properties which the waste and oil should have for trouble-free lubrication. For example, J. Callahan of the Boston & Maine has discussed journal-box waste critically and helpfully in a recent issue of *Railway Mechanical Engineer*. He points out that the railroads do not really know what kind of waste is best or even how to assure themselves they are obtaining what they think is best. Numerous articles have appeared in the past few years discussing various characteristics of car oils and their effect on lubrication. Marked differences in opinion as to proper pour point, the effect of tarry material, and viscosity relationships will be found in these articles.

Milwaukee Experiments to Reduce Hot Boxes

The Chicago, Milwaukee, St. Paul & Pacific, like the others, has developed what it considers proper lubricants, proper packing and satisfactory means for reclaiming and handling these. It is the purpose of this article to describe them and the results that have been obtained by their use on this railroad. There will be many who will disagree with the desirability of the practices described herein, but possibly some good will be accomplished by focusing attention on this perennial

problem. With the continual interchange of some cars and the pooling of house cars the lubrication practices of all railroads attain a new significance.

Table I—Properties of 1927 Car Oils

	Summer	Winter
Flash, deg. F.	330	325
Viscosity at 210 deg. F., S.U. sec.	57	54
Tarry matter, per cent ....	.07	.07
Pour point, deg. F.	+15	-10

The Milwaukee started its experiments with car lubrication several years ago in an effort to reduce the total annual hot boxes. Table I shows the average characteristics of the oil in use for summer and winter lubrication in 1927. At that time the annual hot-box rate on freight cars was one per 135,120 car miles. On passenger cars the hot-box record was very much better, one hot box per 406,747 car miles. It should perhaps be pointed out that the Milwaukee practice is to report as hot boxes only those which are of such a nature as to require that the car be set out. This should be borne in mind in any comparison with other railroads because it is the practice on some roads to report as hot boxes all that run hot, not only those which require setting out the car.

Heavier Oil Needed for Hot Weather

In the spring of 1929 it was decided to revise the car-oil specification to provide a heavier oil for summer use because it appeared that if 54-sec. oil was satisfactory for winter, a 57-sec. oil was too light for the warm months. So a heavier oil was specified for summer lubrication and an oil somewhat lighter than the previous winter oil and with a lower pour point was provided for cold-weather lubrication. The specification for summer oil also called for 3 to 4 per cent of lead soap to be incorporated but this was soon discontinued as the lead soap did not appear to have much value in a car oil and it gave trouble due to the formation of a deposit in the storage tanks. The average characteristics of the winter oil and the new summer oil, without lead soap, are shown in Table II. These two oils were continued in use until the spring of 1931.

Table II—Properties of 1929 Car Oils

	Summer	Winter
Flash, deg. F.	430	320
Viscosity at 210 deg. F., S.U. sec.	71	46
Tarry matter, per cent ....	.07	.08
Pour point, deg. F. ....	..	-15

The results with heavy oil were not very encouraging. The summer of 1929 saw a new high for hot boxes on freight cars and the record for the entire year was the poorest in five years. This was not due entirely to the volume of business because the figure for hot boxes per million gross ton-miles was also higher than average. Table III shows the hot boxes for the summer months of the years 1927 through 1931. The hot boxes for May through September were added together and calculated as percentage of total annual hot boxes, for both freight and passenger cars. The passenger-car record for 1929 appears to be an improvement over 1928 but actually there were very many more hot boxes than usual in 1929 with only a few more hot boxes in the summer months and very many more than usual in the winter months. The percentage of hot boxes in the summer months is thus thrown out of proportion. During the following year (1930) the hot-box situation was back to

normal again with the summer months contributing about the usual number. Up to that time the highest peak of hot boxes had been in the winter months but there was a secondary peak in the hot months.

Use of Summer and Winter Oil Not Ideal

The use of summer and winter oil did not appear to be an ideal means of providing proper lubrication for both hot and cold weather. The boxes that were packed in summer necessarily had much of this heavy oil left when winter came and not enough of light winter oil could be added to make a really satisfactory winter lubricant. The situation in summer was not quite so bad because the winter oil was really sufficiently heavy for summer service although this was not clearly understood at that time. It is believed now that light oil is, in general, much safer than heavy oil for most conditions encountered in journal boxes. In service the oil accumulates water and dirt which become emulsified with the oil and give it more body or false viscosity. It then behaves like a heavier oil. Since the use of heavy oil in summer did not result in any decrease in hot boxes during warm weather it was decided to try using a "year around" oil instead of two seasonal grades. For this purpose a fairly light oil was specified. It seemed clear

Table III—Hot Boxes in Summer Months Calculated to Percentage

Year	Freight	Passenger
1927	44.2	13.7
1928	38.0	36.7
1929	42.0	10.9
1930	39.0	28.6
1931	58.0	25.0
1935	59.0	30.0

that heavy summer oil carried over into the winter season must have been the cause of some of the hot boxes in cold weather.

On the other hand, it seemed evident that the lesser peak of hot boxes in warm weather was not due to carry over of light winter oil. If this had been the case there should have been definite improvement when heavy oil was used in the summer especially on passenger cars as these boxes are repacked seasonally. But, as pointed out above, the hoped for improvement did not materialize. In addition to adopting the "year-around" oil, shown in Table IV, a specification was also made for a "free" oil to be used in the coldest period of the winter. Some preliminary tests with such an oil in the winter of 1929-30 had given promising results.

The characteristics of the "free" oil are shown in Table V. Originally it was intended that this oil be used as a substitute for the "year around" oil for free-oiling only when the temperature fell below zero. Later it was found advisable to raise the limit to +15 deg. F.

Table IV—Properties of Year-Around Oil First Used

Flash, deg. F.	345
Fire, deg. F.	400
Viscosity at 100 deg. F., S.U. (not a requirement)	258 sec.
Viscosity at 130 deg. F., S.U.	124 sec.
Viscosity at 210 deg. F., S.U.	48 sec.
Viscosity index	73
Tarry matter, per cent ....	.04
Pour point deg. F.	-20

and this is the temperature limit in use at present. With the "year-around" oil it was the intention to provide a lubricant that would flow freely in all but extremely cold weather and yet have sufficient body for warm weather. The use of the light "free" oil with a low pour point was expected to compensate for any deficiency

in the "year-around" oil during movements in the cold northern districts.

Use of "Year-Around Oil" Started in 1931

The specification for "year-around" car oil became effective in April, 1931, and oil with a viscosity of 145 sec. max. at 130 deg. F. and 40 sec. min. at 210 deg. F. Saybolt Universal was put into service. This oil gave better results than had been obtained with the seasonal oils. As a result the freight-car miles per hot box jumped in

than do freight-car hot boxes, which necessarily include many foreign cars.

Referring to Table III it will be seen that on a per-

Table VII—Average Properties of Reclaimed Oil For Freight-Car Packing

Gravity, A.P.I., deg.	23.9
Flash, deg. F.	320
Fire, deg. F.	375
Viscosity at 130 deg.	99 Saybolt Univ.
Viscosity at 210 deg.	46 Saybolt Univ.
Precipitation	0.2 c.c.
Tarry matter, per cent ....	.24
Pour point, deg. F.	0

Table V—Properties of Free Oil

	Original	Present
Gravity, A.P.I., deg.	24.5	23.5
Flash, deg. F.	335	335
Fire, deg. F.	385	390
Viscosity at 100 deg.	115 sec.	115 sec.
Viscosity at 130 deg.	66 sec.	66 sec.
Viscosity at 210 deg.	40 sec.	40 sec.
Pour point, deg. F.	-35	-55
Tarry matter, per cent	Trace	.01

1930 to 162,030 and in 1931 went to 286,025, the highest figure attained up to that time. Probably not all of this improvement was due to the oil. Some of it undoubtedly was due to the improved method of renovating the packing and oil and to closer supervision of car lubrication in general.

The Milwaukee's new oil and waste reclamation plant* went into operation in March, 1931. The new method of reclaiming the packing and oil at a central point was a tremendous improvement. The difference in quality between packing prepared by the machine method and that previously prepared by hand in local vats is practically impossible to picture. In addition, good containers for shipping the packing to outlying points were provided. These kept the reclaimed packing clean and

centage basis the freight-car hot boxes in the summer months of 1931 reached a new high, being 58 per cent of the annual total. But it should be noted that the total number of hot boxes in the winter months had been so greatly reduced by the method of lubrication described above that the total annual hot-box figure was much smaller. The number of hot boxes in summer was reduced but not in proportion to those occurring in the colder months.

In an attempt to improve both the "free" oil and the "year-around" journal oil, the specification was revised in 1932. The viscosity and viscosity index were both raised, the properties shown in Table VIII being characteristic of the new oil. The pour point of the "free" oil was also lowered at the same time, experience having shown that the previous pour point of -25 deg. F. was not low enough for the extreme conditions in the northern districts. The pour point of the "free" oil was required to be at least -30 deg. but frequently it has been found to be as low as -50 deg. F.

Success of "Free" Oil Due to Low Viscosity

The success of the "free" oil is believed to be due primarily to the low viscosity and not to the low pour point. The pour point is required to be low only to facilitate oiling a long string of cars in cold weather. If the pour point is not extremely low the oil congeals in the oil cans and cannot be poured readily into the boxes. It was primarily the method of handling the oil which made it necessary to require a lower pour point than previously. If it were practical to handle oil with a pour point of zero but with the same vis-

Table VI—Miles per Hot Box in Passenger Service

Year	Miles per hot box	Hot boxes on passenger cars
1928	479,312	223
1929	241,821	440
1930	629,852	157
1931	2,003,076	41
1932	1,010,461	71
1935	1,459,844	50

in good condition. All the freight-car packing was saturated with reclaimed oil of the characteristics shown in Table VII. Lubrication, therefore, was actually by means of a mixture of the reclaimed oil and new oil. Passenger-car waste was saturated with new oil only.

In 1932 there were 500 less hot boxes than in 1931, and this is the lowest point in the railroad's records for the past 13 years. This, of course, was due partly to the decreased movement of freight, the figure for car miles per hot box being 288,748, slightly higher than in 1931. In 1935 there was one hot box per 373,460 freight car miles and the figure for 1937 is still higher. Thus the efficiency of the lubrication is being maintained very well.

Fig. 1 brings out clearly the reduction in hot boxes that has been obtained by the changes in the lubrication practices. The effect of the "free" oil in reducing hot boxes in the winter months can be seen from the curve for December, 1930, through March of 1931. This was the first winter season when "free" oiling was practiced extensively. The trend of hot boxes on passenger cars during this same period is of interest as these figures probably reflect more accurately the effect of the changes

Table VIII—Properties of Present Year-Around Oil

Gravity, A.P.I., deg.	23.8
Flash, deg. F.	340
Fire, deg. F.	380
Viscosity at 100 deg. F., S.U.	290 sec.
Viscosity at 130 deg. F., S.U. (not a requirement)	140 sec.
Viscosity at 210 deg. F., S.U.	51
Tarry matter, per cent ....	.04
Pour point, deg. F.	-15
Viscosity index	90

eosity as above, it is believed that it would be just as satisfactory as with a low pour point.

"Free" oil and "year-around" oil have been continued in service since 1932. The "free" oil takes the place of the regular journal oil and hence there is no increase in the volume of oil consumed. "Free" oil is cheaper than the regular car oils so that the overall lubricating costs are reduced. Lubrication during the winter months is reasonably satisfactory but still not entirely so in the summer months. The annual total of hot boxes, as well as the figure for hot boxes per million gross ton-miles, has been lowered to approximately one-half of what it averaged prior to 1931.

In an effort to reduce hot boxes during the summer

* For a description of the plant and method of operation see page 976 of the *Railway Age* issue of June 11, 1932.

months it was decided in 1936 to try "free" oil during the warm season. For this purpose, however, a heavy oil with a viscosity of 70 sec. at 210 deg. F. was specified. Instructions were issued to use this oil only when the average temperature for the day was 75 deg. or higher. Unfortunately the results obtained were not entirely conclusive. The summer of 1936 was an unusual one from the standpoint of climatic conditions. All the railroads operating in the central west were troubled with numerous dust storms and prolonged periods of extremely high temperatures. These conditions undoubtedly accounted for some of the hot boxes. Hot boxes on passenger cars during the summer months did not differ much from 1935 so that if a comparison is based on this it can be concluded that the use of heavy "free" oil on the freight cars was not very helpful. "Free" oiling with heavy oil was not continued in the summer of 1937, only the "year-around" oil being used.

Viewing the above results in the light of existing information it appears that a wiser course to have followed would have been to use the same "free" oil in summer that is used in winter. Whenever heavier oil has been used the hot-box curve has gone up and, conversely, when lighter oil has been used hot boxes have decreased. In automotive circles a viscosity of 50 seconds at the operating temperature is considered satisfactory. If this applies to railroad cars it seems certain that experimenting with light oils is the proper course to follow. Journal boxes operate at temperatures around 140 deg. F. and all car oils except the light "free" oil described above have a viscosity far above 50 sec. at 140 deg.

Type of Journal-Box Packing Highly Important

A discussion of hot boxes would not be complete without some comments on the other important part of the lubricating system, the journal-box packing. For several years the Milwaukee has used a packing containing 40 per cent dark woolen and 60 per cent cotton threads. Of the cotton threads two-thirds are soft cop and spooler light in color, and one-third blue slasher threads. The resulting waste is rather dark in color and is not rolled after machining. This type of waste has been used extensively since 1932. Formerly some packing with 10 per cent coconut fiber was used but it never was very satisfactory. The fiber had a tendency to ball up and form "birdnests" so that it was very unevenly distributed. At best, it is doubtful if it contributed much resiliency to the packing. In the reclamation machine the fibers broke up excessively and were removed with the "short ends."

Axminster carpet threads were formerly required for the wool portion of the packing but this too, has been discontinued, owing to the high cost. The quality of the present grade of journal-box packing appears to be satisfactory for the purpose and it is doubtful if the number of hot boxes can be reduced appreciably by making further changes in the type of waste used for packing.

The substitution of left pads and axle-operated oilers may offer improvement over the conventional system but the Milwaukee has had but little experience with either of these types of lubrication.

A survey of hot boxes on freight cars was made recently to determine what percentage of them were on system cars. Over the entire period of about eight months that figures have been available, only one-third of the hot boxes were on Milwaukee cars. It is obvious from this that lubrication cannot safely be planned solely

on the basis of results on system cars. It has not been possible to obtain information on the ratio of system and foreign freight car miles on the Milwaukee but the elimination of the per diem charge has undoubtedly influenced this ratio in the past two years.

Comparisons between the present trend of the hot-box curve and the trend five years ago may not be valid because of these changed conditions. However, the results so far obtained with "year-around" oil in combination with "free" oil seem to indicate that this is a step in the right direction. Summer and winter car oils are not as satisfactory as the above and light oils appear to be more suitable than heavy oils. Possibly the next logical step is to extend the winter "free" oiling to a year around basis. Many railroads are still using heavy summer oil. Adding light oil to it should improve its lubricating qualities for freight-car service.

In the examination of hot-box records there was found an unusual number of hot boxes on tank cars containing gasoline and light oils. Without definite figures showing the relative number of cars of this type being handled it is not possible to determine if the percentage is unduly high but it certainly seems to be out of proportion. That tank cars may actually be the source of more than a proportional number of hot boxes is indicated by the results on two divisions of the Milwaukee. They handle a relatively large number of tank cars and the number of hot boxes per gross ton-mile is about double the average of other divisions. Surging of contents when loaded with quite fluid oils may be one cause of hot boxes on these cars. At times the surging of the liquid sets up a force great enough to burst the tank head. Less violent surging may cause a waste grab and ultimately a hot box. Baffle plates in tank cars would eliminate surging and thus forestall bursting of the heads as well as possibly reducing the number of hot boxes.

Another interesting fact observed was that the same car does not run hot regularly. Of all the system cars reported there was no case where the same car was reported twice during a period of eight months except in a few cases where a car ran hot twice in the same movement. This probably was due to not applying the proper remedies after the box ran hot the first time. It is possible, too, in such cases that it was a different box on the car which ran hot the second time but that is doubtful. Cars with dusty lading or those loaded to near capacity had a much greater tendency to run hot than the average car. Sand, cement, coal, flour, gravel, and steel products are some of the most common loadings of cars that develop hot boxes. No single type of system car was noticeably more subject to hot boxes than any other. All classes of both old and new cars appeared to be equally susceptible to hot boxes. Hot boxes on empty cars are not unusual.

It is not intended to indicate that changes in the lubrication practices are alone responsible for the excellent hot-box record of the past few years on the Milwaukee. As pointed out before, freedom from hot boxes depends upon adequate maintenance just as surely as upon lubrication. Careful inspection and preparation of journals, bearings and wedges, proper maintenance of bearings and boxes in train yards and on repair tracks, and a continuous campaign of education, backed up by vigilant supervision, are all necessary to bring hot boxes to a minimum with even the best lubrication practices that may be developed.

The value of any changes in methods or materials of lubrication cannot be properly evaluated unless the purely mechanical factors are maintained uniform. The 1937

(Continued on page 919)

Legislative Program Stymied

R. F. C. loan bill tied up by attempt to make it a pawn in wage-cut controversy

WASHINGTON, D. C.

RAILWAY emergency relief legislation, which organized railroad labor and its friends in Congress are seeking to make a pawn in the wage-cut controversy, remained stymied on Capitol Hill as this issue of *Railway Age* went to press. The Senate bill to liberalize Reconstruction Finance Corporation lending was recommitted on May 19 to the committee on banking and currency at the request of Chairman Wagner, while a similar House bill has remained undisturbed on the calendar since the failure to bring it up for consideration on May 20, as had been planned. Meanwhile the Senate committee on interstate commerce has taken no action on the bill to repeal land grant rates since the measure was recommitted last week at the request of Chairman Wheeler; but the House committee on interstate and foreign commerce has set May 31 as the date for hearings before the full committee on H. R. 10620, the land-grant-rate repealer introduced by Chairman Lea.

Labor Threatens Strike

The disposition to tie the relief legislation up with the wage cut—and to deny the former if the carriers insist on the latter—was evident on all sides. In asking unanimous consent for recommitment of the R. F. C. loan bill Senator Wagner told the Senate that when the measure was framed there had been no discussion “of a threatened reduction of the wages of railway employees.” And R. F. C. Chairman Jesse H. Jones in a May 18 letter to Senator Wagner said, among other comments on the bill, that the committee should satisfy itself about wage decreases “particularly in the lower paid brackets.” Further discussion of the wage-cut proposal came in the House on May 20 in remarks prompted by the failure of the committee on banking and currency to bring up their R. F. C. bill. Also, the Railway Labor Executives Association notified Congress that it is opposed to any legislative relief for the carriers “in view of their ruthless plan to lower living standards of their employees.”

R. L. E. A. at the same time released a statement for last Friday's newspapers, threatening a nationwide strike if the railroads insist upon following through on their announced plans to cut wages 15 per cent. This statement's charge that the carriers had “double-crossed labor” in serving the notices despite an “understanding that no such notice would be served while the workers were co-operating with management in seeking financial relief through other sources” brought a prompt denial from J. J. Pelley, president of the Association of American Railroads. Mr. Pelley said that the charge “is without the slightest foundation,” adding that labor's representatives “were fully advised of what the railroads intended to do and there was no possibility of a misunderstanding on the subject.”

Work Loans the Bill's “Principal Purpose”

There has been some talk of passing the R. F. C. loan bill with amendments denying loans under its provisions to railroads which fail to maintain present wage

scales. In making his recommitment request Senator Wagner said that “it is very clear that if the bill is to be reported again the committee will make some amendments to it.” In his letter to the New York Senator, R. F. C. Chairman Jones pointed out that “the principal purpose” of the bill “was to provide for loans that would put railroad employees back to work, largely in the lower-paid brackets, employees who have been furloughed, discharged or put on a part-time basis by the roads in an effort to avoid bankruptcy.” While he sees “no great demand for equipment,” Mr. Jones nevertheless thinks “the provision for financing the purchase of equipment is important and to the extent used would increase employment.” After mention of other provisions dealing with Interstate Commerce Commission certifications, Mr. Jones closes with comment on the opposition to the section which would permit R. F. C. to dispose of collateral held against past and future railroad loans. “Those protesting,” the R. F. C. chairman said, “were largely the beneficiaries of our loans and come with poor grace in their efforts to deny us the right to our collateral and the representation it entitles us to.”

At his May 20 press conference, Mr. Jones said that the railroad outlook was anybody's guess, although he is still optimistic on the business outlook. Despite persistent questioning, he refused to give his views on the wage-cut proposal. Asked if there would be any railroad legislation at the present session, Mr. Jones replied that the emergency program seemed to be stalled in Congress.

Since its failure to follow through on last week's plan to take up the R. F. C. loan bill, the disposition of the House committee on banking and currency has been to await the next move of the Senate committee. Speaker Bankhead predicted this week that nothing would happen in the lower branch until the Senate acted. Speaking on the point last Friday, Representative Withrow of Wisconsin could not “follow the process of reasoning by which any legislative body permits the extending of credit for the purpose of building up purchasing power so that employees may buy the goods produced by an industry and at the same time the industry so benefited seeks a decrease through a wage cut which materially cuts down the purchasing ability of that industry. That in my opinion is the essence of insanity and certainly is inconsistent and has no place in a sound government policy.”

Pay Rolls Not Cause of Railroad Ills

He went on to say that he would introduce an amendment to the House bill which would have for its objective “the denying of grants authorized in the measure if the railroads insist on reducing wages.” Comparisons of railway wage payments with interest charges, similar to those given previously in Senate discussions, were next made by Mr. Withrow, who found that such data “prove conclusively that pay rolls have not been the cause of financial difficulties of the carriers.” He added that “to permit railroad executives to cut their pay structure 15 per cent would merely be carrying on the vicious

policies of the past that have been the chief factor in bringing about the wholesale break-down of the railroad structure, and it is no wonder that it has led to the many railroad bankruptcies."

It is Mr. Withrow's further view that "the government and railroad employees have always been fair to the railroads. Whenever the railroads have gone before the Interstate Commerce Commission for a revised rate structure, the commission has been sympathetic; whenever the railroad companies have come to any of the governmental agencies and asked for loans, the government has been very liberal." In explaining the liberality of employees, Mr. Withrow referred to the 1932 wage-deduction agreement, adding that "in addition to this, the contracts between the employees and employers were liberalized which means a substantial saving to the railroad company. . . . It is conservative to say that the concessions made by employees have amounted to a 24-per cent reduction in their income as compared with their earnings in 1929."

"Wizards in Financing and Refinancing"

Mr. Withrow closed with this parting shot at railway management: "It has long been apparent that the railroad executives, if left to their own devices, will complete the ruin of our transportation systems because of their short-sighted policies. It is of utmost importance that they be prevented from further contributing to the economic destruction of the entire country as well. The railroad executives of today, instead of being operating officials and instead of going out and getting business as they should, have become wizards in financing and refinancing. That has become their specialty; these policies have been practiced at the expense of the employees, their stockholders, and the general public."

The above-mentioned press release which last week came from the Railway Labor Executives' Association opened with the strike threat and led up to the "double-cross" charge with the assertion that employees "have already been heavy sufferers from the railroads' policy of putting the payment of interest to wealthy bondholders above decent living standards for their employees." It goes on to say that if the carriers "cannot be convinced that a wage reduction is not only unjustified, but is absolutely dangerous to the economic structure of this nation, it will be necessary for the railroad employees to use their economic strength to save the railroad industry from committing social suicide and dragging other industries along with it."

The "Double-Cross" Charge

Then comes the "double-cross" charge in which connection it is asserted that labor's representatives, "in keeping with the understanding," remained in Washington "seeking legislative relief for the railroads;" but railroad presidents "ran out, went to Chicago and publicly announced their intention to cut wages 15 per cent." The statement next contends that "wages in the railroad industry rank among the lowest paid in the nation's major industries"—despite "persistent propaganda put out by the railroads." Also, the carriers' action is called "poor cooperation" with the government's recovery program "in the face of the fact that the railroads have recently received authority from a governmental agency to increase their freight rates by \$275,000,000 a year."

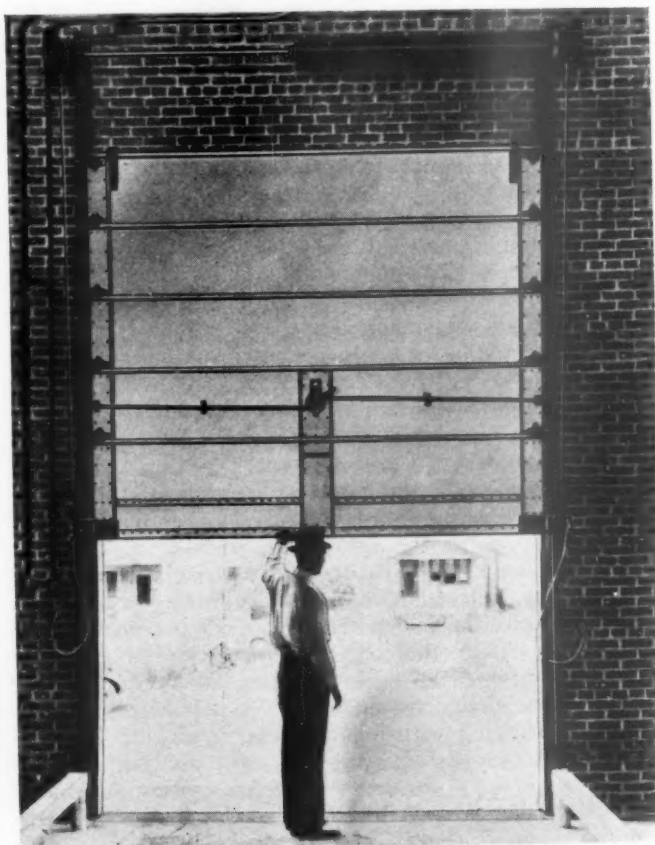
Mr. Pelley's reply was a brief one in which he had no purpose "to discuss the merits of the proposed reduction in wages, as all such questions must be solved in accordance with the provisions of the Railway Labor

Act." Aside from excerpts quoted above he said that the labor representatives who participated in preliminary conferences on the wage question "clearly understood, when these negotiations were broken off, that, in the opinion of the railroads, there were no pending proposals that could be taken as an alternative to a wage reduction."

Vertical Sliding Door

A NEW heavy-duty all-steel door, known as the Vertical Sliding All-Steel 'RoL-TOP' Door and suited to several types of railroad applications, has been placed on the market by the Kinnear Manufacturing Company, Columbus, Ohio. The door is made up of heavy transverse sections of copper-bearing steel sheets, galvanized by the hot-dip process, which are given additional strength and rigidity by the addition of reinforcing plates at points where hangings and fastenings are applied.

The door is equipped with specially designed hardened steel ball bearing rollers which operate in vertical steel tracks applied to the door jambs. At the top of the tracks is mounted a torsion-type counterbalance, consisting of an oil-tempered helical spring operating around a solid steel shaft, to which the door is connected by heavy, plow-steel cables. When closed, the door can



An Installation of One of the "RoL-TOP" Doors

be locked by means of a cylinder twist lock connected to lock bars which engage slots in the steel track.

The door can be furnished in any practical size and in any number of sections required. It is claimed that it will not warp, pull apart or sag, and that it is vermin-proof and highly resistant to weather, fire and abuse.

Rail Trucking Subsidiary Leads In Safety

St. Louis Southwestern highway division shows the way to large fleet owners

THE Southwestern Transportation Company, trucking subsidiary of the St. Louis Southwestern, has won the first prize for safety presented by the National Safety Council on two occasions within the last five years. Second prize was won by the Southwestern on two other occasions and in this, the fifth year of the award, this company is well on its way to winning another first prize. These prizes are awarded annually by the National Safety Council to promote highway safety, and are divided between the various types of highway operations, the Southwestern being included in the division of large inter-city fleet operators. The success of this company in promoting safety is remarkable because of the fact that it operates over a network of highways in the southwestern states that are not comparable in excellence with those used by several of the other fleet owners in the competition whose operations are largely confined to the highways in the "hard-road" states.

The Southwestern company also operates through much territory that is unfenced against cattle, which further complicates its safety problem. At the same time, it operates to and from such large cities as Dallas and Memphis, and through oil-field territories where the highways are congested.

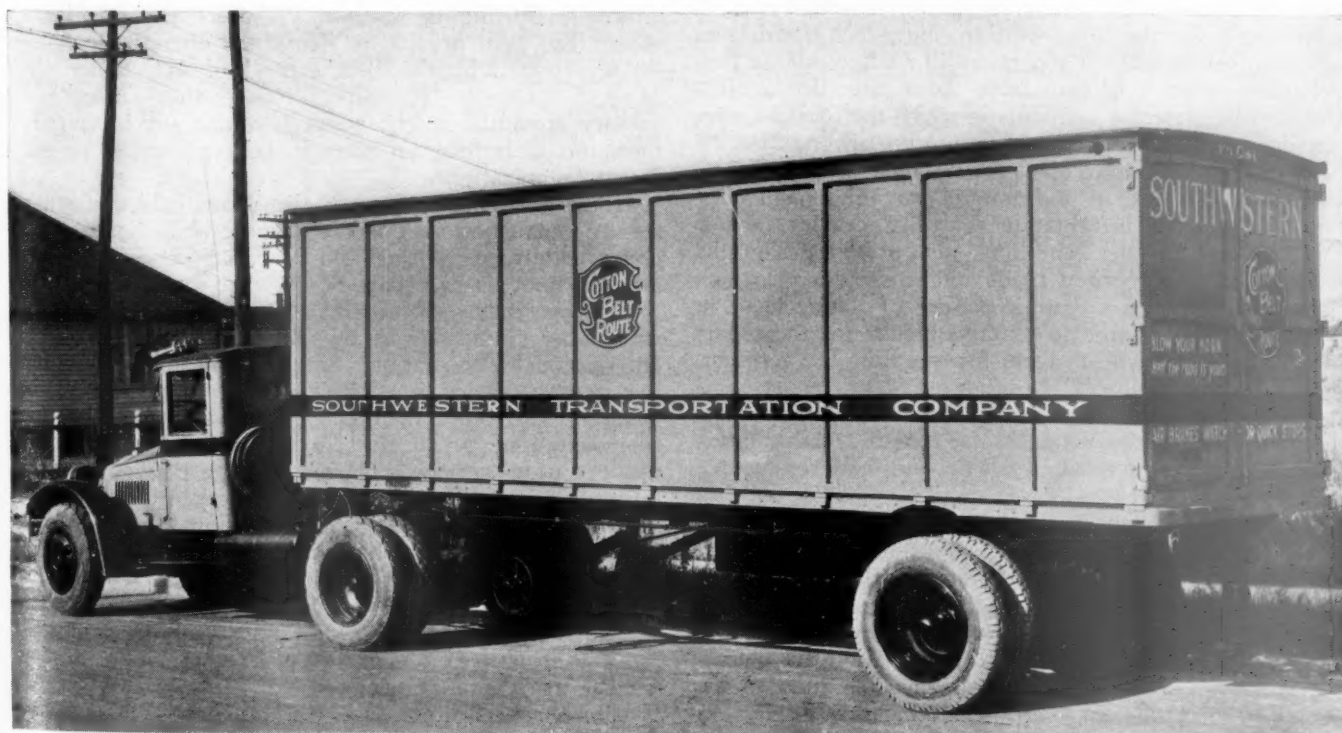
The highway operations of the Southwestern Transportation Company and the rail-highway co-ordination plan under which it operates in conjunction with the

parent railway company were described in detail in the *Railway Age* of July 24, 1937, page 112. The trucking company serves as a supplementary service to the railway, providing faster and more flexible schedules on l.c.l. freight. In the co-ordinated service, the railway handles the freight to and from certain collection and distributing points and the trucking company collects and delivers it at the smaller main line points and along the branch lines. The Southwestern Transportation Company also handles the railway's city collection and delivery service, although local trucks in this service do not come under the inter-city competition.

How It's Done

The company recognizes that the basic unit in highway safety is the truck driver. For this reason, the company has been careful in the selection and training of its operating personnel, and gives them every assistance in maintaining safety records.

Not only does the Southwestern compete for the annual prize as a whole, but it is set up in divisions to promote the competitive spirit between the drivers of each division. Safety bonuses are also paid to drivers with no-accident records, on the basis that after two years of driving without an accident, the driver receives an increase in pay of \$5 per month, which increase is



Modern, Well-Maintained Equipment Is One of the Reasons for the Excellent Safety Record of the Southwestern Transportation Company

enlarged to \$7.50 after three years, to \$10 after four years, and to \$20 per month after driving five years or more without an accident.

This bonus system was put into effect on June 1, 1937, based on the safety records up to that date, and no driver awarded a bonus has since been involved in an accident which would cause him to lose his extra pay. As a matter of fact, from the date the bonus was made effective there were no accidents whatever until in March, 1938, when the drunken driver of a private automobile crashed into the side of a truck while attempting to cut around it.

In the national competition, all accidents are reported and counted against the fleet, regardless of where the fault lies; however, within the organization and with particular reference to the bonuses paid, a driver is not deprived of extra pay for safety if he is involved in an accident that is clearly and demonstrably not his fault. To determine this, some officer or other agent of the company visits the scene of each accident and makes a thorough investigation.

The Southwestern Transportation Company has been organized on a large-fleet basis for seven years. At the present time, 40 power units and a large number of trailers and semi-trailers are in inter-city operation, 3 drivers have records of 7 years without an accident, 4 have 6-year records, 4 have 4-year records, 4 have 3-year records, 13 have 2-year records, and 27 have 1-year no-accident records. This list, of course, includes many drivers who have only been in service a few years, and a majority of the drivers listed above have had no accidents since entering the service of the company.

Reporting Accidents

All Southwestern drivers are required to stop at the scene of any accident on the highway, even when they were not involved, and render such aid as they can. This rule has been made a law in Texas, but the Southwestern made it effective long before the law was passed, and observes it in all states through which it operates. Not only does this supply a courteous service which is good advertising for the Southwestern, but, since the drivers are required to make a report on all such accidents they see, it is valuable in case false claims are filed against the Southwestern for accidents in which their trucks were not involved, as has happened in more than one case.

A comprehensive accident report form is supplied to the drivers, which, in addition to providing blanks for entering complete information as to the accident, including road and weather conditions, also provides diagrams showing various types of roads and crossroads on which the driver sketches a graphic picture of the accident in question. This form also contains blanks for the report of the superintendent or agent investigating the accident. These reports, as well as other accident reports and newspaper accounts and photographs of highway accidents, are studied in detail at the monthly safety meetings, which are attended by all drivers, and commented on freely.

The Southwestern Transportation Company operates only modern equipment, and its shops at Texarkana and elsewhere are fully equipped to keep such equipment in the best of running order, and all inter-city units are equipped with air brakes. A complete mechanical record of all equipment is constantly available to the operating officers, who have found that checking this feature closely is an invaluable aid in promoting safety.

Before a driver takes any piece of equipment on the road, he is required to check it and sign a receipt that

all safety devices are present. In the case of tractors, the following equipment is checked:

Lights
Brakes
Horn
Windshield wiper
Tires
Set of three flares
Jack

Jack handle
Jack block
Lug wrench
Fire extinguisher
Gas
Oil
Starting crank

For the semi-trailers, lights, light connections, brakes, air connections and tires are checked. The driver also checks the toolbox before every trip, which must contain spare light bulbs, red flags with standards, red fusees, hammer, pliers, large and small screw drivers and an adjustable wrench. This toolbox equipment is supplied as a result of a careful study of the proper contents of a toolbox. Such reports are made prior to the departure of the trip from the terminal and presented to the agent, who, after checking any exceptions, forwards them to the general office for further checking and filing.

In addition, a vehicle condition report is filled in by each driver handling a power unit in the course of a trip, which provides for comments as to the condition and operation of the motor, steering, brakes, drive line, lights and body. The reverse of this sheet is the inspector's work sheet on which is recorded the type of work done to rectify any trouble reported by the drivers on the other side of the report. These reports are also mailed to the general office for checking to determine that all exceptions reported were remedied promptly and correctly.

By a combination of careful selection and training of drivers and seeing to it that the equipment provided is in safe condition, the Southwestern has been able to build up its excellent safety record, even under somewhat adverse conditions so far as the highways used are concerned.

M. of W. Employees One Craft—Except

(Continued from page 910)

Chicago, Burlington & Quincy, where the Mediation Board had held previously that these employees should be represented by the Brotherhood of Maintenance of Way Employees. It also contended that an unsatisfactory condition might result if water service repairmen and their foremen were to be represented by different organizations.

In the decision in this case, the Board held that water service repairmen on the Wabash are skilled mechanics doing mainly pipe-fitting and plumbing work and that, as such, they form a part of the craft or class of railroad sheet metal workers, and should be represented with others in this craft by the Sheet Metal Workers International Association. In refuting the contention that water service repairmen on the road should be grouped with other maintenance of way employees for representation, as on the Burlington, the Board held that the water service repairmen on the Burlington perform a variety of duties, none of which are sufficiently predominant to warrant the conclusion that they are clearly pipe fitters or mechanics, as appears to be the case on the Wabash. No change was made as a result of the dispute, or the decision, in the status of water service department foremen on the Wabash, who will continue to be represented by the Brotherhood of Maintenance of Way Employees.

The decisions in both of the foregoing cases were signed by Otto Beyer, chairman, and by Wm. M. Leiserson and Geo. A. Cook, members of the Board.

Communications . . .

Trainman Blames Both Unions and Managements

MINNEAPOLIS, MINN.

TO THE EDITOR:

In your April 30 issue appeared a letter by M. A. Murray, a locomotive fireman who seems to be very able minded, and with a back strong enough to disturb the unions that would outwardly protect his interests. I'm convinced he wrote a very sensible, timely, and to-the-point letter on mileage hoggery, who show just as much selfishness as our great railroads have been accused of. More power to you, Mr. Murray.

I, like Mr. Murray, am a railroad man in the ranks. Unlike Mr. Robertson's "young" railroad men, between 35 and 50 years of age, otherwise the backbone and mainstay of the railroad brotherhoods, I wonder just where I might come in, with slightly less than two year's rights as an ambitious C. St. P. M. & O. trainman, and incidentally, writing this resume on my 26th birthday.

Just as Mr. Murray says of the N. P., unlimited mileage benefits are nabbed by those who have enough whiskers on the Omaha, too, taking all and leaving nothing—meaning all the way from 2,600 miles and upward a month. As I hired out in 1936, when new brakemen were a novelty, I was aware of a mileage law "on paper" but didn't quite grasp its effects as it might have helped me. I don't think there was any law or decorum in existence for conductors and trainmen who caught Nos. 88 and 89 regularly for days and weeks on end, these jobs operating under the chain crew system. They often garnered 3,200 miles per month and more while a bulletin in black and white stood posted in the operating offices to the effect that mileage rights were throttled to 2,600 miles per. Being a newer man I was without rights, authority or means to see this bulletin enforced as should have been the case with the "older heads"—or "whiskers," as I prefer to call some of these die-hards.

Recently certain conductors endeavored to put the freight jobs on a regular crew basis, heretofore operated in chain gang. Well, this meant bigger monthly paychecks for the four conductors and eight trainmen that could hold the turn, but your guess is as good as mine that we "forgotten brakemen" weren't considered for any of these benefits. Like the recent wage raise, we lost instead of gained by it. These referred-to conductors were somewhat double-crossed, not by the management, but by the growing extra board membership on our division, and this regular crew ruling was subsequently annulled. Bringing up this point is intended to show the selfishness among train crews, unions or no unions. Some 8 to 10 extra conductors on our division, who were regular runners last summer, have been reduced, as a whole, to head brakemen or extra board work, so you can visualize the effect of the pay raise, assisted somewhat by the C. & N. W. Class H's now operating partly in Omaha road territory.

In regard to enthusiasm, I believe there are more railroad-blooded youths anxious to break into the railroad game now than ever existed before, but what a chance, considering present union handicaps and management's mania to mechanize the industry!

As to consolidations—consider such substantial cities as Winona, LaCrosse, Portage, Menomonie, Eau Claire, Madison, Baraboo, Dubuque, Savanna, Milwaukee, which cities are just as responsible for the existence of the railway lines as the Twin Cities or Chicago itself. You can't ignore these in-between cities in consolidations and expect railroading to survive. The roads are buying new power, new streamlined trains and installing centralized traffic control and all this railroad progress is being put on the shoulders of labor, not the swivel chair artists. New streamline trains and equipment are appearing on the roads almost weekly, and still the railroads are broke, so the managements say, and labor should make the supreme sacrifice. Why? When official salaries get down to train service scales, then I'll start to admit the circumstances are desperate.

Well, my letter may not be as consistent as it should be, but it conveys rather generally that everybody is to blame—manage-

ments, labor, unions, machine innovations, and the like. And we junior train and firemen still have had no part in this, for or against ethical railroading. Management practices seem so cruel to us that can't work regularly, and haven't since the days of high school or the 1931 swing into hell itself. But maybe our troubles are not so bad considering the headaches managements have had to nurse themselves—truck, air, and water competition, union demands, government subsidization to all but railroad interests.

Even considering all this I'd like to be a railroad officer some day—not for the advantages it may or may not have as an individual's importance in the transportation field, but for the part I, or all my other fellow trainmen and others, might participate and plan in to make a permanent and future railroad system for all time, disarming the selfish interests of labor and management alike and all co-operating to a coveted successful goal. Let's start now.

ALDEN E. MILLER

Changes and Improvements in Modern Passenger Stations

PHILADELPHIA, PA.

TO THE EDITOR:

Your issue of May 7 carried a report from the Committee on Yards and Terminals of the American Railway Engineering Association, on passenger-station facilities, that touches a point to which I have given consideration for some time. Noting the various changes and improvements which have been made in modern stations, there is one point which it seems to me has been generally neglected. In this report, it is touched on in Item 4, but I think that it deserves more thorough consideration than seems to have been given to it by the committee.

Every journey begins at a door and ends at a door. A station to station journey is not all there is to the trip. Increase in train length and other factors have greatly increased the size of the modern station, so that the distance that a passenger must walk from his local conveyance to reach the rail conveyance has been greatly increased, this being particularly true of stub-end stations. I most earnestly advocate some arrangement that will bring local conveyances, street cars and buses, as well as cabs, to a point much closer to the train side than is now usually done.

In England, and in Europe generally, the arrival platform is the usual arrangement and much money has been spent to enable cabs to line up on the opposite side of the platform for almost the whole length of the more important trains. Something of this sort should be done here. I believe strongly that the inconvenience of our present transfer arrangements is an important factor in the shift of passengers to the convenience of private automobiles which afford a door to door journey without an intervening break.

HENRY PAUL BUSCH

Hot Box Preventive Measures on the Milwaukee

(Continued from page 914)

report of 399,100 miles per hot box on freight cars compared with the rate of 135,120 miles per hot box ten years ago indicates that both lubrication and maintenance have been greatly improved. The hot-box situation has not been entirely corrected and further work should lead to additional improvement. Long continuous movement of freight trains at high speeds, which modern conditions demand, is going to be hampered until hot boxes are reduced to a minimum.

NEWS

"Equal Rights for All"; — Pettengill

Indianian cites 11-point equality program as first step toward railroad health

"The remedy for the 'railroad disease' is simple; it can be stated in eight words — equal rights for all; special privileges for none." This was the nucleus of a talk entitled "The Future of the Iron Horse," presented by Samuel B. Pettengill, member of Congress from Indiana and author of the bill to amend the long-and-short-haul clause bearing his name, before several hundred members and guests of the New York Railroad Club, meeting in New York City on May 20. After analyzing current difficulties of the American carriers and painting a picture of the distress that would follow their collapse, the speaker, declaring, parenthetically, that his status of the evening was one of "bringing coals to Newcastle," presented the principle quoted above as his choice of a guide for the future. Follow this policy, he said; then let the best man win.

"If under that time-tried prescription the rails cannot survive, let them follow the canal boat and the horsecar to the museum. But under that treatment there is no reason to doubt their future usefulness, prosperity or longevity."

Mr. Pettengill then offered an eleven-point program of equal rights which would afford justice to the rail carriers. Included amongst these proposals were demands that government competition with the railroads be ended and that subsidies to competitors of the railroads be stopped; that the long-and-short-haul clause be amended; that a single body be given the power to regulate rates for all carriers; that railroad management be restored "to its constitutional freedom in strictly management problems"; and land grant contracts be repealed.

Concerning railroad administration, the congressman denied that "railroad management is dead on its feet," or that operation by politicians would be an improvement. As pointed out above, he asked that management be again given power to run their roads, adding that "there are some good men in Washington, but no gods." Carrying this suggestion further it was his opinion that management should work out railroad consolidation plans, leaving only veto power to the Interstate Commerce Commission. He argued against the present law which gives to the commission the duty of mapping out consolidation programs.

Again he said, "We have got to stop making the railroads the goat. If not, the government will have to feed the goat and when the roads feed off the government, deficits will be devastating. With the railroads in the 'goat house,' all competitors, if not all business, will probably follow." Concerning government competition with the carriers, Mr. Pettengill urged that the Federal Barge Line be sold and added that "if it is one-half as good as Major-General Ashburn says it is, buyers should be warned not to crowd."

Status of RFC Loans to Railroads

The monthly statement of the Reconstruction Finance Corporation as of April 30 shows disbursements to railroads and receivers of \$551,937,239 and repayments of \$182,557,867.

Personal Injury Claims

Senator Wheeler of Montana has introduced in the Senate a bill (S.4075) to make employee claims for personal injuries preferred claims against the assets of railroads in receivership, and to require that such claims be paid out "as operating expenses."

Louisiana Approves Higher Rates

The Louisiana Public Service Commission on May 18, approved increases of 5 to 10 per cent in intrastate rail rates, to conform with interstate rates recently authorized by the Interstate Commerce Commission. Exceptions include rates on sugar cane, sugar and bagasse.

Committee Chairmen for N. Y. Railroad Club Outing

At the Golf Tournament, Field Day and Dinner of the New York Railroad Club, to be held on Thursday, June 9, at the Westchester Country Club, Rye, N. Y., the activities of the various events will be in charge of Charles A. Gill, president of the club, as honorary chairman; Frank J. Foley, is general chairman of the outing; S. F. Pryor, Jr., is vice-general chairman; J. E. Davenport is assistant general chairman in charge of golf; Ken Auburn, assistant general chairman in charge of games; D. W. Pye is chairman of the general committee and A. N. Dugan, vice-chairman of that committee. Other committee chairmen are E. A. Jones, attendance; W. Lyle Richeson, out-of-town; H. H. Vreeland, good fellowship; B. H. Cottle, transportation; Frank Hedley, reception; C. C. Hubbell, "get-together"; Samuel F. MacClurkan, refreshment; Roy V. Wright, publicity.

Politics the Road To the Poorhouse

When all seek to get rich only by taking from others, everybody gets poorer

Because government, business and labor have been making "economic fools" of themselves, production, construction and freight traffic have increased relatively only one-tenth as much within the last twenty years as they did within the twenty years following the great depression of the nineties, declared Samuel O. Dunn, chairman of the Simmons-Boardman Publishing Corporation and editor of *Railway Age*, in an address at Owosso, Mich., on May 25 at a dinner ending the celebration of a "Railroad Appreciation Day" which was participated in by local citizens and railroad officers and employees.

"Between 1896 and 1916 the freight business of our railways increased 260 per cent," said Mr. Dunn, "and the number of employees increased from 827,000 to 1,654,000. During the next twenty years—from 1916 to 1936—there was no increase in railway freight traffic at all, and the number of employees declined from 1,654,000 to 1,066,000. If you add together all the freight traffic handled by the railways and the trucks in 1936, you will find it was only 25 or 30 per cent larger than was handled by the railways alone in 1916.

"Why did total production, construction and commerce, as measured by freight traffic, increase relatively ten times as much during the twenty years ending with 1916 as during the twenty years ending with 1936? Before the war, government, business and labor were following economically sound policies. Since the war, especially during the present greatest and longest of all depressions, they have all been following economically unsound policies. It is not 'economic royalists,' but economic fools, that are responsible for our present situation.

"When I entered railway newspaper work in 1906 the first thing I encountered was a great 'car shortage'. The railways had been rapidly increasing their facilities and employees; but the traffic had grown too fast for them. The second thing I encountered was universal complaint by railway officers of a shortage of labor, although we were allowing unrestricted immigration from Europe. What do you find now? On every hand critics of the railways are saying they have over-ex-

(Continued on page 926)

Wheeler Threatens Pettengill Filibuster

Also raps Simmons-Boardman Publications for differing views on measure

Chairman Wheeler of the Senate committee on interstate commerce served notice on May 23 that he intends to oppose passage at the present session of the Pettengill bill to repeal the long-and-short-haul clause of the Interstate Commerce Act's fourth section, "just as long as I can stand on the floor of the Senate." The threat came in the course of remarks made when the Montanan inserted in the Congressional Record an article from the May 21 issue of *Traffic World*, which juxtaposed under a "Well, Which Do You Mean?" caption excerpts from editorials headed "Pettengill Bill Threatens Shipping" and "Section 4 Fosters Special Privilege," reprinted respectively from the May issue of *Marine Engineering & Shipping Review* and the July 3, 1937, issue of *Railway Age*, both published by the Simmons-Boardman Publishing Corporation.*

Referring first to the *Railway Age* editorial Senator Wheeler called attention to the fact that in it "the attitude of certain individuals is criticized because of the fact that they were opposed to what is known as the Pettengill bill, which proposed the repeal of the fourth section of the Interstate Commerce Act." He went on to read the concluding paragraph of the excerpt, adding that it was his information that Samuel O. Dunn, editor of *Railway Age* "has been on the pay roll of the Western Railroad Association for some time as a public relations counsel, or something of the kind."

Turning to the reprinted excerpt from the *Marine Engineering & Shipping Review*'s editorial, Mr. Wheeler also read its closing paragraph, continuing to assert that "In other words the same man who wrote an editorial in the *Railway Age* in favor of the Pettengill bill wrote an editorial against the Pettengill bill in the *Marine Engineering & Shipping Review*, which is owned by the same company, and said that the enactment of the bill would destroy the shipping industry of the country." The speaker thought the foregoing illustrated what Senator Minton of Indiana (author of the majority committee report favoring passage of the Pettengill bill) "would say about some of the newspapers of the country; they blow hot one day and cold the next, and apparently get away with it."

Then came Senator Wheeler's filibuster threat when Senator Minton asked if the chairman of the committee on interstate commerce "will not agree with me in my effort to bring up the Pettengill bill so that we may get this thing finally settled." The Montanan, who last month shut off the parade of opposition witnesses at hearings on the bill because of his expressed disposition to permit the Senate to vote on the measure at the present session, called attention to the minority report in opposition, filed by himself and Senators Shipstead of Minnesota and Truman of Mis-

souri; and he went on to say that "As far as I am personally concerned, I do not think any legitimate argument can be advanced and in my judgment no legitimate argument was advanced in favor of the Pettengill bill before the interstate commerce committee, which held long hearings."

"I appreciate the fact," Senator Wheeler continued, "that propaganda was put out by the railroads and the Chicago Chamber of Commerce, and I appreciate the fact that they purchased certain individuals to carry on the propaganda from one end of the country to the other. So far as I am concerned, I intend to oppose the Pettengill bill at this session and just as long as I can stand on the floor of the Senate to oppose it. If the senator from Indiana wants to stay here all summer long and discuss the bill, I will join him and stay here, but he may rest assured that he will stay here a long time."

After Mr. Wheeler had obtained unanimous consent to have the *Traffic World* article printed in the Congressional Record, Senator Copeland of New York reiterated a previous promise to "stay here with the senator from Montana until the snow flies in order that the Pettengill bill may be defeated." Whereupon Senator Norris of Nebraska suggested that "there are a great many people who will be willing, if they are physically able to stand the strain, to remain here during the summer and until the snow flies, until New Year's comes again, to assist the senator from Montana. . . . I should like to volunteer in his army to render such service as I can in order to bring about the defeat of that bill. I hope that those in charge of the majority side will not try to force upon the country a measure which will necessitate the holding of Congress in session during a large part of the summer. I had hoped that the bill might be forgotten, or laid aside, at least, so far as the present session is concerned."

Later Senator Norris said that the bill "is so vital to our country that it should not be taken up now when we are preparing to adjourn." The discussion ended in a bit of by-play on whether the foregoing remarks constituted a filibuster threat or merely the expression of a disposition to give the Pettengill bill a "full and fair" debate.

*The business management of the Simmons-Boardman Publishing Corporation, of which Samuel O. Dunn is chairman, does not dictate the editorial policies of its publications. Mr. Dunn, as editor of *Railway Age*, is the responsible director of the editorial policies of this paper. He neither writes the editorials (as erroneously stated by Senator Wheeler) nor directs the editorial policies of *Marine Engineering*. In attempting to pillory these publications, their critics have merely drawn attention to their editorial integrity.—THE EDITORS.

Competitive Eastern Rates Extended

Shippers requesting public hearings on so-called motor truck and water competitive rates in Official territory which were scheduled to expire automatically on June 30 have been informed by a public announcement of D. T. Lawrence, chairman, Traffic Executive Association-Eastern territory, that, as a general proposition, the rates in question will, with certain exceptions, be extended to a date not later than October 31.

Contract Plan No Basis for Rights

Examiner holds B. & M. tie-up with truckers can't sustain "grandfather" authority

Trucking operations contracted for by the Boston & Maine and the Boston & Maine Transportation Company do not suffice to establish rights for those companies under the Motor Carrier Act's "grandfather" clause, according to the recommended findings of Examiner Paul R. Naefe in a proposed report to the Interstate Commerce Commission. If upheld by the commission such a finding would perhaps have widespread ramifications in view of the fact that many highway affiliates of the railroads are set up on the same basis for the performance of the freight services which they offer.

Pointing out that on the "grandfather" clause deadline dates—June 1, 1935, for common carriers and July 1, 1935, for contract carriers—neither the B. & M. nor the B. & M. T. owned any highway freight equipment, Mr. Naefe finds that the haulage performed for them by independent vehicle owners under contract cannot be regarded as motor vehicle operations of the railroad and its subsidiary. Meanwhile the report recommends the granting of a "grandfather"-clause certificate to Big Three, Inc., the largest of the B. & M.'s contract truckers, for the continuance of common-carrier operations over several Massachusetts routes.

Two Big Three, Inc., applications were disposed of in the latter recommended finding, and the report in addition considered six applications of the B. & M. and the B. & M. T. One of the railroad applications related to store-door services, and denial was recommended in view of the Scott Bros., Inc., decision holding that such operations are subject to Part I of the Interstate Commerce Act. Also, the railroad and its affiliate moved for dismissal of their separate applications for common and contract carrier authority, respectively, on a route between Mechanicville, N. Y., and Scotia. Thus the proposed report was devoted in the main to the separate general applications of the railroad and its subsidiary for "grandfather" rights on various routes in Massachusetts, New Hampshire, Vermont and Maine.

In dealing with these the examiner first described the operations of the Transportation Company, which are of two kinds: (1) Operations conducted in its own name and for its own account, which "it believes to be common carriage . . ." and (2) operations performed for its parent railroad, under contract, in substitution for rail movement, which "it believes to be contract carriage . . ." Although both the railroad and the subsidiary filed applications in the latter connection for either certificates as common carriers or permits as contract carriers, or both, to continue the services involved, it was urged on brief that "a permit as a contract carrier should be issued to the Transportation Company

because neither the railroad nor the Transportation Company is a common carrier in performing the considered services . . . it is entirely likely that in many cases the shipper is not aware that motor vehicle service is to be given his traffic for a portion of the haul."

Prior to the "grandfather" clause's June 1, 1935, deadline, (from which a common carrier's continuous operations must date if it is to receive a certificate without a showing of public convenience and necessity) the B. & M. T. was operating, and "continuously since that time" it has been engaged "in providing service for the transportation of general commodities . . ." over the routes on which it now seeks certificates. It was registered under the National Industrial Recovery Act's code of fair competition for the trucking industry, and "since prior to June 1, 1935," it "has solicited freight from the general public for its own account, holding itself out as a common carrier." However, prior to January 1, 1936, (six months after the "grandfather" clause deadline date for common carriers) the report goes on, "neither the Transportation Company nor the railroad owned or operated any trucks, and the Transportation Company's shipments were transported in motor vehicles owned and operated by seven motor carriers, and with one exception under oral agreements with the Transportation Company." And while the railroad affiliate assumed responsibility to the shipper, "it claimed the right of recourse against the motor carriers whose services it utilized."

Prior to and on June 1, 1935, the bulk of the Transportation Company's freight was carried by Big Three, Inc., and N. F. Smith & Company, the former operating over 20 routes and the latter on nine. In the case of the larger carriers the B. & M. T. name was painted on the truck along with the name of the truck owner. The written agreement was with Big Three and the examiner outlines its provisions and how the arrangement operated, as he leads up to the beginnings of B. & M. ownership of highway freight equipment on January 1, 1936. On that date the Transportation Company discontinued using the vehicles of Big Three on certain routes, "and in place thereof leased vehicles from the railroad, which the latter acquired from the Big Three on January 1, 1936." Subsequently similar arrangements were effected on additional routes until on May 12, 1937, the vehicles of Big Three were used on only five routes.

From this background Mr. Naefe examines section 206(a) of the Motor Carrier Act which "provides, in substance, that if a carrier was in *bona fide* operation as a common carrier by motor vehicle on June 1, 1935 . . . and has so operated since that time, the commission shall issue such certificate without requiring further proof that public convenience and necessity will be served by such operation . . ." The Transportation Company contended that it met this test "regardless of the fact that it did not own the trucks which carried its traffic." It argued with citations that it would have the status of a common carrier at common law "even if it did not own or operate a single vehicle; that at common law the failure to

own or control vehicles of itself did not prevent a person from being a common carrier." Further, it asserted that it came within the Motor Carrier Act's definition of a common carrier in that it published tariffs and made contracts of shipment in its own name; accepted responsibility for the property it received; and "carried on extensive operations in connection with which it dealt directly with the public."

The examiner, however interprets the Act's definition of a common carrier somewhat differently. The definition reads as follows: "The term 'common carrier by motor vehicle' means any person who or which undertakes, whether directly or by a lease or any other arrangement, to transport passengers or property . . . for the general public in interstate or foreign commerce by motor vehicle for compensation . . ." To test the B. & M. T. contention the examiner turns to the words "by lease or any other arrangement" and finds them to mean something more than the railroad affiliate was doing on June 1, 1935. A lease, he points out, contemplates that "the possession and control of the vehicle is, for the period of the lease, entirely vested in the lessee." Nor does he think it reasonable to assume that the phrase "any other arrangement" contemplates "something less than the essential requirements of a lease;" for "it is logical to assume that it means a manner of operation conducted under similar circumstances, terms and conditions as would be present and binding on the parties if a valid written lease had actually been in force."

This view Mr. Naefe finds supported by the legislative history of the act; he points out that, in explaining the action of the Senate committee on interstate commerce in adding the phrase "whether directly or by lease or any other arrangement," Chairman Wheeler said that the definition had been framed with the idea of checking evasion of the act "by bringing within its terms such transportation operations as are performed through the leasing of motor vehicles or other *similar arrangements* . . ." The emphasis on the Senator's use of the words "similar arrangements" was supplied by the examiner, who went on to list and discuss other citations in support of his contention.

After further discussion of the Transportation Company's arrangements with the independent truckers he reaches his conclusion that under the circumstances "the operations of these motor carriers cannot be regarded as motor vehicle operations of the Transportation Company under the statutory definition of a common carrier by motor vehicle, and that therefore the Transportation Company was not, on June 1, 1935, in *bona fide* operation as a common carrier by motor vehicle" over the routes involved.

In similar fashion the examiner would dispose of the applications of the railroad and the Transportation Company for authority to continue the transportation of freight moving on railroad billing by motor vehicle between stations or in transfer service in substitution for freight train or freight car services. In the same connection the B. & M. T. sought authority to continue arrangements with forwarding companies at Boston, Mass., Springfield

and Holyoke. The question presented by these applications, the report explains, "is whether in the performance of the considered services, the railroad is entitled to a certificate as a common carrier or a permit as a contract carrier, or whether the Transportation Company is entitled to such authority." Mr. Naefe answers that question by referring to his above-discussed finding on the B. & M. T. common-carrier application, asserting that the same conclusion here applies "with equal force under the statutory definition of a contract carrier by motor vehicle." Thus he would have the commission find that "neither the Transportation Company nor the railroad were on June 1, 1935, or July 1, 1935, in *bona fide* operation as common or contract carriers by motor vehicle." over the routes involved.

The report reveals that the B. & M. T. has pending two other applications for certificates to "extend common carrier operations by motor vehicle" on certain New Hampshire routes. These applications were heard on a separate record and "will be the subject of a separate report."

April Pension Taxes

The Bureau of Internal Revenue's comparative statement of internal revenue collections for April shows that railroads and other employers subject to the Railroad Retirement Act in that month paid a total of \$14,780,879.19 in taxes under the pension plan's taxing act, as compared with \$15,728.69 in April, 1937.

Pension Tax Refunds

The Senate on May 23 approved House amendments to S.3526, the bill providing for the refund to railroads of taxes collected under the invalidated original pension law. Approximately \$139,000 is involved in the refunds provided for in the bill which now awaits action by the President.

I. A. M. Certified for Santa Fe Trails Mechanical Forces

The National Labor Relations Board has certified International Association of Machinists, an American Federation of Labor affiliate, as exclusive representative of more than 200 employees in the mechanical department of Santa Fe Trails Transportation Company, Inc., Atchison, Topeka & Santa Fe affiliate.

Crosser Puts Rail Employees Under Wage Bill

In passing the wages and hours bill on May 24 the House of Representatives adopted an amendment proposed by Representative Crosser, of Ohio, which would bring railroad employees under the minimum wage provisions, but leave them exempt from the maximum hours provisions. Employees of motor carriers would be accorded similar treatment under the measure, which calls for a minimum wage beginning at 25 cents per hour and increasing to a maximum of 40 cents in three years.

As reported in the House, the bill had stipulated that the provisions of the minimum wage and maximum hours sections would not apply to employees of employers

subject to Part I of the Interstate Commerce Act; nor the provisions of the maximum hours section to motor carrier employees over whose hours-of-service the Interstate Commerce Commission has jurisdiction.

Rail Finance Resolution is Reported

Senator Wheeler, from the committee on interstate commerce, has favorably reported Senate Resolution 273, which would continue the rail finance investigation through the seventy-sixth Congress. The report points out that this resolution is the usual form in connection with the liquidation of an investigation by a congressional committee, and goes on to say that the committee has considerable data which remains to be compiled and put into form such that it may be used in drafting necessary legislation.

Accounting Classification Change

The Interstate Commerce Commission, Division 4, has issued an order cancelling Account No. 756, Receiver's Certificate, and its text, and prescribing the following substitute: "756. Receivers' and Trustees' Securities.—When receivers or trustees acting under the orders of a court are in possession of the property of the company and under the order of such court issue evidences of indebtedness, or assume the payment of equipment trust certificates, the par value of such evidences and certificates shall be credited to this account."

The order becomes effective June 1.

Railway Executives Attend Bulkley Conference

J. J. Pelley, president of the Association of American Railroads, R. V. Fletcher, A. A. R. vice-president and general counsel, Dr. Julius H. Parmelee, director of the Bureau of Railway Economics, and Ralph Budd, president of the Chicago, Burlington & Quincy were among those attending a May 25 meeting in Washington, D. C., which was called by Senator Bulkley of Ohio to discuss the formation of a national council to bring about cooperation between the government and other elements of national life.

Williamson Made Head of Eastern Carriers Group

F. E. Williamson, president of the New York Central, was elected chairman of the Eastern Presidents' Conference at a meeting of the group held on May 19. Mr. Williamson succeeds L. F. Loree, recently retired from the presidency of the Delaware & Hudson, who has served as chairman of the Conference since September 18, 1919. Carl C. Jellinghaus, executive secretary, New York Central, was appointed secretary of the Conference, effective June 1, to succeed F. W. Leamy, vice-president of the Delaware & Hudson, who has served as secretary of the presidents' group for many years.

Southwest Board Meeting

The Southwest Shippers' Advisory Board will hold its fifteenth annual and forty-eighth regular meeting at Ft. Worth, Tex., on June 2. In addition to committee

reports, the program provides for a special discussion of pertinent factors relating to the season's wheat crop, which will begin moving in the next few weeks. At a luncheon sponsored by the Fort Worth Traffic Club, the Chamber of Commerce and the Lions Club, W. J. Kelly, chairman of the National Committee on Freight Tariffs, will speak on "Simplified Publication of Freight Rates Generally, and Particularly with Reference to General Changes in Rates Such as Ex Parte 123."

Support Group to Spotlight Passenger Business

"Making Passenger Traffic Profitable" will be the topic of the next meeting of the Committee on Railroad Support, to be held on June 3 at the group's headquarters in New York City, to which a group of railroad passenger officers have been invited. A discussion is scheduled of methods of educating employees in the solicitation of passenger business and "to evince the same personal interest in the welfare of the passenger business as employees of air lines display." Further information will be sought as to what the railroads have tried to do to persuade the unions to allow two-man crews on branch-line motor trains. Publicity on new passenger trains will also be discussed.

C. & O. Elects Board of Eleven

The struggle between the Robert R. Young and Guaranty Trust Company factions for management control on the board of directors of the Chesapeake & Ohio reached a compromise in regard to board membership and size when stockholders of the road, meeting in Richmond, Va., on May 19 approved the enlargement of the board from nine to eleven members. According to an agreement between the proxy committee for the management (Young committee) and that for the Guaranty (Bailie committee), made public on May 19, common objectives of the two parties were to be attained through enlargement of the board to eleven members, to comprise eight of the present directors and J. B. Hollister, J. L. Dickinson and Earle Bailie, the latter Guaranty nominees.

This end was accomplished at the annual meeting by re-election of eight of the former directors and, in addition, Mr. Bailie. This new board, in turn, modified the by-laws to provide for the creation of two additional directorships, which were filled by the election of Messrs. Dickinson and Hollister.

Watermelon Rates O. K.

Dismissing the complaint of the Georgia Public Service Commission and intervening petitions of the North Carolina Utilities Commission, South Carolina Public Service Commission and Florida Railroad Commission, the Interstate Commerce Commission, Division 2, has found that carload rates on watermelons from points in those states to destinations in Southern, Official and Western Trunk-Line territories were not shown to be unreasonable.

Commissioner Caskie dissented, pointing out that the commodity's high production and loading costs are "increased in some instances as much as 209 per cent by the

freight rates alone." He finds it evident that watermelon producers, "if they desire to avoid economic destruction, must find cheaper transportation."

New Claim Bills Introduced

Representative Gearhart, of California, has introduced H. R. 10693, a bill which would give the Interstate Commerce Commission the power to prescribe rules and regulations governing the filing of claims with carriers and would make it unlawful for any carrier to violate any of the rules and regulations prescribed by the commission. A maximum penalty of \$5,000 fine or one year's imprisonment or both is provided for in the bill. Representative Gearhart has also introduced H. R. 10692, a companion bill, which would authorize the Secretary of Agriculture to designate certain cities as principal perishable commodity markets and employ inspectors whose duty it would be to observe cars as they arrive and check on the number of claims paid at those points and the celerity with which they are paid.

Court Refuses to Amend Steel Pricing System

The request of the United States Steel Corporation and four of its subsidiaries that the order issued in 1924 by the federal trade commission, prohibiting the practice known as the "Pittsburgh plus" method of establishing steel prices, be set aside, was refused by the United States Circuit Court of Appeals at Philadelphia, Pa., on May 19. The court held, however, that the steel company's position is fully protected by its appeal, filed at the same time as the petition asking for a stay, for a review of the entire "Pittsburgh plus" order.

The next move in the situation caused by U. S. Steel's court action is expected to be a review of the "Pittsburgh plus" order on a basis of conditions as they exist now and not as they existed prior to 1924. The steel company started the court action as the result of an amendment to the federal trade act passed by Congress, which provides that federal trade commission orders become fully effective without recourse unless an appeal against them is taken within 60 days of the time the orders are issued.

O. & W.'s "Mountaineer" Makes Trial Run

"The Mountaineer," a "reconditioned" train which was turned out of the New York, Ontario & Western shops at Middletown, N. Y., this week, made a trial run between that point and Cadosia and return on May 25. The seven-car maroon-and-orange train, hauled by a "modernized" 4-8-4 locomotive, made a stop at each important Catskill mountain resort town along the way and carried an invited party of some 45 persons, including the representatives of 12 local newspapers and town officials. At Roscoe, the arrival of the train was greeted by the town band, while at Cadosia, a group of 250 students of the Hancock Central High School boarded the train for a short run. At least 50 per cent of the youngsters declared that they had never been inside a train before.

"The Mountaineer" will go into revenue

service over Memorial Day week-end, after a short exhibition period at the Weehawken, N. J., terminal of the road on May 27. It is expected to go in daily service on the schedule of trains No. 3 and 4 late in June.

Northland Greyhound Bus Route

Joint Board No. 82, composed of Thomas E. Carey of Montana has recommended in a proposed report that the Interstate Commerce Commission grant the Northland Greyhound Lines, affiliate of the Great Northern, a certificate for the continuance of common-carrier bus operations, instituted in July, 1935, between Helena, Mont., and Three Forks, by way of Townsend, 67 miles. The applicant, the report says, has apparently established "grandfather" rights for a longer Helena-Three Forks route, by way of Butte, where it has operated for several years; and the principal reason for the present application was to provide more direct service.

The Northern Pacific and the Railway Express Agency opposed the granting of the application, claiming that "the territory embraced by the extension is now adequately served by them." The Board, however, took the position that "the mere fact that the territory has rail service is not in and of itself a sufficient reason for depriving it of passenger bus service, with its commonly acknowledged advantages, including flexibility of routing and schedules."

Accounting by St. Joseph Belt

The Interstate Commerce Commission, Division 4, has issued a report and order requiring the St. Joseph Belt to treat as a premium on capital stock the value of a parcel of land acquired without consideration from its sole stockholder, the St. Joseph Stock Yards Company. Thus the Division upholds the recommendations of Examiner Thomas D. Walton's proposed report (see *Railway Age* of October 2, 1937, page 468) which reached the conclusion that the railroad had violated the commission's accounting rules in recording the transaction as a donation. Also, the commission, as the examiner recommended, cut the valuation of the land involved from \$1,020,499 to \$279,690.

Division 4, like the examiner, tied the transaction up with a 1929 agreement to sell Belt's stock to the Van Sweringens' Geneva Corporation, which agreement provided that the land involved should first be conveyed by Stock Yards to Belt. This stipulation was held to have enhanced the value of Belt's stock; and the prescribed accounting is as follows: Debit \$279,690 to Account 701, Investment in Road and Equipment, and credit a like amount to Account 753, Premium on Capital Stock.

Hearings on Motor Carrier Amendments Concluded

Hearings before a subcommittee of the House committee on interstate and foreign commerce on H. R. 9739, a bill providing for changes in the Motor Carrier Act as recently recommended by the Interstate Commerce Commission, were concluded on May 23. A companion bill in the Senate, S. 3606, was recently reported to the Senate

for passage. The Senate bill, as reported, followed substantially the commission's recommendations.

The testimony before the House subcommittee followed the same general lines as that given at the Senate hearing, which was reviewed in *Railway Age* for April 2, page 633. Among the witnesses testifying were Commissioner Eastman, L. F. Orr, chairman of the highway transportation committee of the National Industrial Traffic League; John E. Benton, general solicitor of the National Association of Railroad and Utilities Commissioners; R. C. Fulbright, representing the American Port and Warehouse Association and the National Grange; A. W. Koehler, secretary of the National Association of Motor Bus Operators, and J. Ninian Beall, general counsel for the American Trucking Associations.

Fourth Division Adjustment Board Changes

Edward Murrin, secretary of the Association of Western Railways, has been designated by the committees of the carriers in eastern, southeastern and western districts to act as representative of the carriers on the Fourth Division of the National Railroad Adjustment Board, following the resignation of A. J. Hancock, assistant general manager of the Southern Pacific lines, as a carrier member. Recent changes also include the appointment of Charles P. Neill, manager of the bureau of information of the Southeastern railways, as a railroad member to succeed E. I. Ford, assistant to the general superintendent of the Chesapeake & Ohio, who retired because of illness in May, 1935; the appointment of S. J. Hogan, president of the National Marine Engineers' Beneficial Association, as an organization member to succeed William S. Brown, president of the National Marine Engineers' Beneficial Association, who died in March, 1937; and the appointment of R. A. Walton, vice-president of the International Longshoremen's Association, as an organization member to succeed J. J. Noonan, secretary-treasurer of the International Longshoremen's Association, who resigned on March 14, 1936.

Equipment on Order

Class I railroads on May 1 had 4,867 new freight cars on order, as compared with 47,290 on May 1, 1937, and 18,467 on May 1, 1936, according to the Association of American Railroads. On April 1, this year, 5,825 new freight cars were on order. New steam locomotives on order on May 1 totaled 61 compared with 345 on May 1, last year, and 52 on the same date two years ago. The railroads had 84 new steam locomotives on order on April 1, this year. New electric and Diesel-electric locomotives on order on May 1 totaled 10 compared with 34 on May 1, 1937, and 25 on May 1, 1936; on April 1, this year, 19 new electric and Diesel-electric locomotives were on order.

Class I railroads in the first four months of this year installed in service 5,302 new freight cars compared with 20,946 in the same period in 1937 and 5,916 in the same period in 1936. They also put in service

94 new steam locomotives and 49 new electric and Diesel-electric locomotives compared with 86 steam and seven electric and Diesel-electrics installed in the same period last year, and three steam and three electric and Diesel-electrics in the same period in 1936.

New freight cars and locomotives leased or otherwise acquired are not included in the above figures.

Santa Fe Rail-Bus Service Starts June 17

Co-ordinated rail and bus service between San Francisco, Cal., and Los Angeles, to the San Joaquin Valley and south of Los Angeles to San Diego, will be inaugurated by the Atchison, Topeka & Santa Fe on June 17. This service, as described in the *Railway Age* of April 23, page 743, will operate on a schedule of approximately nine and one-half hours between San Francisco and Los Angeles. Two streamlined air-conditioned trains, christened the "Golden Gate," will operate between San Francisco and Bakersfield on a six and one-quarter hour schedule. At Bakersfield air-conditioned, streamlined buses complement the train service, running from Bakersfield to Los Angeles on a three and one-quarter hour schedule. Other buses will connect the smaller communities on the east and west sides of the San Joaquin Valley with the streamlined trains.

Co-ordinated service will also be placed in effect in the territory from Los Angeles to San Diego on June 17, on which date bus service over the Long Beach-Laguna, as well as the Santa Ana route, to San Diego will begin. There will be interchangeability between Santa Fe buses and the San Diego streamliner, which has been in operation since March 22.

Wilgus Sees Transport Weakness in Defense Plans

Colonel William J. Wilgus, who was intimately connected with transportation problems during the World War, made a plea for a more adequate preparation for the direction and operation of the military transportation mechanism for any possible future war, in an address delivered at the annual reunion of the Transportation Corps A. E. F. Association, at New York, on May 21. In his talk, which was delivered to an audience composed almost entirely of trained transportation men, who held officerships in the Transportation Corps during the World War, Col. Wilgus, after a brief sketch of the difficulties experienced in meeting transportation problems during 1917 and 1918, presented a three-point plan for a military transportation program. Briefly, it was his opinion that: "(1) A peace-time organization should be adopted for the transportation of troops and supplies by land, water and in the air, which in time of war shall function successfully without material change; (2) The head of such an organization should be a leader fitted by experience, tact and genius to mold officers of the regular establishment and in the Reserve in time of peace for a common end under the stress of war; and (3) by the establishment of a chair in transportation,

or by a series of lectures on that topic, the cadets at West Point should be made transportation minded, not in the details that can be learned only by long experience, but in an appreciation of the importance and general nature of what may be a decisive factor in a future war in which they may be leaders."

It was Col. Wilgus's contention that experience has taught that in order to produce an effective transportation organization for the waging of war, it is necessary to organize such a unit during peace time. At present, he claimed, "the fact clearly stands out that the Army's transportation organization in all its unworkability is right back again where it was when we entered the World War."

1937 Motor Vehicle Registrations 1,539,000 Above 1936

Motor vehicle registrations in 1937 amounted to 29,705,220—an increase of more than 1,539,000 over the preceding year, according to State reports to the Bureau of Public Roads of the U. S. Department of Agriculture. There were registered 25,405,728 automobiles, 4,255,296 trucks, and 44,196 busses.

Registration receipts totaled \$337,410,000. Other receipts for permits, certificates of title and from miscellaneous sources brought the total to \$399,613,000. Additional payments to States by motor carriers, such as taxes on gross receipts, ton-miles, passenger-miles, and as special license fees and franchise taxes, amounted to \$16,216,000. Increases in registration of more than eight per cent were reported in Arizona, Connecticut, Florida, Kentucky, Michigan, Mississippi, New Mexico, Oregon, and Utah. Increases of more than 100,000 were reported in California, Illinois, Michigan, New York and Pennsylvania.

According to the Bureau of Public Roads, highway usage increased not only because of the presence of a million and a half additional vehicles, but because of increased use per vehicle. This is indicated by an increase of 7.6 per cent in gasoline consumed as compared with a 5.5 per cent increase in registrations.

April Truck Loadings 14.22 Per Cent Under Last Year

Movement of commodities by motor truck in April, reflected a 3.33 per cent decrease in business under March and a 14.22 per cent drop as compared with April, 1937, according to the monthly survey of truck loadings compiled by the American Trucking Associations, Inc. Reports were received from 118 carriers in 28 states, having aggregate loadings of 504,452 tons in April as compared with 588,040 tons in the same month last year and 521,827 tons in March, 1938. The A. T. A. truck loadings index figure, based on the monthly average of tonnage for the year 1936 as 100, stood at 94.88 for April as against 83.11 in March, and 117.82 in April last year.

In the general merchandise class, April tonnage was 15.44 per cent under April, 1937, and 2.51 per cent under March, 1938. A large decrease was shown in the movement of iron and steel, the figures for the

month under review were 46.15 per cent under April a year ago. However, a slight rise of 0.07 per cent was noted over March, 1938. Movement of cars and trucks by automobile transporters in April jumped 12.29 per cent above March, but was 52.94 per cent under April last year. Haulers of petroleum products reported declines; last month's tonnage was 8.62 per cent under March, and 28 per cent below April, 1937.

"Fan" Group Activities

Advertised as the first "off the beaten lane" harbor tour in history, an inspection trip of New York harbor facilities is to be operated on a steam lighter by the Central of New Jersey, on the afternoon of Saturday, June 4. In the course of the "voyage," the party will inspect the facilities of the Central at Jersey City, N. J., look over the Baltimore & Ohio yards on the shore of Staten Island, and pass up the East river to the Bronx terminal district. A buffet dinner will be served on board the vessel and a public annunciator system will be installed through which a guide will indicate points of interest.

Railroad Enthusiasts, Inc., announces affiliation with the "Association Francaise des Amis des Chemins de Fer," a group with similar aims and purposes organized in France. The enthusiast group is also affiliated with the Railway Correspondence & Travel Society of Great Britain.

An inspection trip covering the New York, Susquehanna & Western, the Wilkes-Barre & Eastern and the Erie will be operated on Sunday, June 12. Covering 350 miles, the tour will traverse the New York, Susquehanna & Western from Jersey City, N. J., to Stroudsburg, Pa., thence over the heavy grades of the Wilkes-Barre & Eastern to Avoca, Pa., where it will transfer to the Erie tracks and return to Jersey City via Lackawaxen, N. Y. and Port Jervis.

Gasoline Tax Law Receipts Net \$761,998,000 in 1937

Gasoline taxes, inspection fees and similar receipts—resulting from gasoline tax laws in the various states—yielded a net revenue of \$761,998,000 in 1937, according to reports of State authorities to the Bureau of Public Roads of the U. S. Department of Agriculture. Similar receipts in 1936 totalled \$691,420,000. Consumption of gasoline on highways amounted to over 19 billion gallons and increased 7.6 per cent over the preceding year. Increases are reported in every State except Nebraska and Tennessee.

During the year four states increased the rate of tax by one cent with the result that the average rate for the United States rose from 3.85 cents in 1936 to 3.91 cents in 1937. Rates of tax ranged from 2 cents in the District of Columbia and Missouri to 7 cents in Florida, Louisiana and Tennessee. "The rate of tax," says the Department of Agriculture statement, "does not appear to seriously influence consumption since for the last two years the greatest percentage increases have all been in states with tax rates above the average, with two exceptions. In 1937 twelve States had increases of over 10 per cent,

and in ten of them the tax rate ranged from 4 to 7 cents.

Refunds for non-highway or public use amounted to \$43,210,000, an increase of six million dollars over 1936. In addition 650 million gallons were exempted from tax.

Freight Car Loading

Loading of revenue freight for the week ended May 14 totaled 541,813 cars, an increase of 5,673 cars or 1.1 per cent above the preceding week, but a decrease of 227,747 cars or 29.6 per cent below the corresponding week in 1937 and a decrease of 390,533 cars or 41.9 per cent below the same week in 1930. All commodity classifications except grain and live stock showed increases over the preceding week, while all commodity classifications except grain showed decreases under last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loading			
For Week Ended Saturday, May 14			
Districts	1938	1937	1936
Eastern	118,191	170,973	150,322
Allegheny	97,382	161,093	138,074
Pocahontas	33,311	48,405	46,067
Southern	85,390	106,530	94,081
Northwestern ..	71,179	124,804	106,073
Central Western ..	91,766	105,193	94,794
Southwestern ..	44,594	52,562	51,997
Total Western Districts	207,539	282,559	252,864
Total All Roads ..	541,813	769,560	681,408
Commodities			
Grain and Grain Products	32,226	26,476	30,558
Live Stock	12,165	12,545	11,672
Coal	81,404	116,287	106,679
Coke	4,073	10,075	7,997
Forest Products ..	26,341	39,287	33,126
Ore	12,971	71,095	46,559
Merchandise I.c.l.	148,848	170,215	162,269
Miscellaneous ..	223,785	323,580	282,548
May 14	541,813	769,560	681,408
May 8	536,140	763,495	668,866
April 30	543,075	777,827	670,888
April 23	523,767	756,248	665,949
April 16	537,585	746,523	642,278

Cumulative Total,
19 Weeks ... 10,362,585 13,710,033 11,932,824

In Canada.—Car loadings for the week ended May 14, totaled 45,568, being an increase of 750 over the previous week, but a decrease of 1334 under last year, according to the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
May 14, 1938	45,568	19,796
May 7, 1938	44,818	20,379
April 30, 1938	44,230	20,523
May 5, 1937	46,902	28,390

Cumulative Totals for Canada:

May 14, 1938	841,699	411,997
May 15, 1937	899,523	542,526
May 9, 1936	813,002	448,670

F. J. & G. Plan Presented to I. C. C.

A protective committee headed by F. J. Lisman, representing the first consolidated general refunding mortgage bonds of the Fonda, Johnstown & Gloversville, on May 23 filed with the Interstate Commerce Commission a plan of reorganization for the road which would give these bondholders control of the road. The plan provides for total fixed and contingent charges of \$129,327 annually, as compared with \$312,820.

The proposed plan also contemplates the abandonment of electric rail service by the road and the substitution of bus service

between Gloversville, N. Y., and Schenectady and between Gloversville, N. Y., and Fonda. The committee states that the new bus lines should have a gross revenue of about \$300,000 annually, leaving a net available for fixed charges of about \$30,000.

The plan provides that holders of general refunding 4s of 1950 will receive an equal principal amount of new first mortgage four per cent bonds; the holders of Johnstown, Gloversville & Kingsboro Horse 5s will receive an equal amount of new first 4s, J. G. & K. H. common \$100 new first 4s for each share of common now held, and holders of first consolidated 4½s would receive \$100 new refunding 4s, \$200 new convertible contingent interest 5s and 15.72 shares of new no par common stock at the rate of 1½ shares for each \$100 of balance due on the principal and interest.

Holders of secured claims would be given options to two shares of new common stock at \$10 per share for each \$100 of indebtedness and would be given the right to purchase at par any senior fixed interest obligations of the new company. Holders of the present preferred and common stocks would be given options to purchase new common, preferred holders at the rate of 1.59 shares of new stock at \$10 per share for each share of preferred now held and common stockholders to purchase one share of new common at \$10 per share for each four shares of old common now held. These stockholders would also be given the right to purchase at par and accrued interest senior fixed interest obligations of the new company.

N. & W. Produces Historical Film with "Cast" of 250 Employees

The Norfolk & Western, as a feature of the observance this year of its centennial, has produced a new vocafilm entitled, "A Century of Service," which portrays the history and development of the railway during the 100 years of its existence. The film, which has a recorded sound accompaniment, is to be made available for presentation at civic clubs, schools and colleges and other organizations in the railway's territory, and will be shown before N. & W. employees' "Better Service Club" meetings.

The scenes in the production include the activities of Virginia citizens in 1833 to secure a railroad between City Point and Petersburg; the building of the original nine-mile line; expansion of lines and partial destruction in the Civil War; the struggles of rebuilding, consolidation, panics, bankruptcies; the organization of the Norfolk & Western in 1881; the opening of the coal fields of southwestern Virginia and southern West Virginia; and expansion and improvements up through the years to the present.

In the making of "A Century of Service," which was produced under the supervision of the road's advertising and magazine department, approximately 250 employees of the railroad took part. The properties ranged from small writing quills from England to antique desks, horses, tallyhos, torches and bonfires. Approximately 175 costumes, representing styles as far back as 1833, were supplied by a New York costume. Forty-five well-

known professional radio voices were used to animate the picture. Several hundred voices were tried out for part. Those in charge of the production estimate that it required 7,340 man-hours to produce the film.

Newsmen Flock to New Haven Jaunt

Chartered news planes, motion picture sound trucks, and scores of photographers and feature reporters sent by metropolitan dailies and national magazines were part of the scenery at the first "fold boat-cycle-picture" train of the season operated by the New York, New Haven & Hartford out of New York to Falls Village, Conn., in the valley of the Housatonic river, on Sunday, May 22. News organs seem convinced that a train trip to the country and the sport of a 21-mile trip down a fast river in a collapsible boat or along a parallel route by bicycle continues to offer real public interest, for once again they sent along their staffs in substantial numbers.

Four news reel outfits were represented: Paramount sent two camera crews along; Fox Movietone drove two sound-equipment trucks to the site of navigation head; Hearst Metrotone sent a sound truck and placed a camera crew on the passenger list as well, the latter to "get" the "social life" during the ride home. Universal also had a man on the train.

Photographer Bill Wallace of the New York "Daily News" wanted quick publication of his pictures on the fold boat group embarking in the boiling waters of the Housatonic; therefore he chartered a plane which picked up the "shots" at the nearest landing field and hustled them back to New York. Most of the other dailies of New York and Boston and several national monthlies sent representatives on the train who made some judicious photo shots and gathered a quantity of "copy."

State Rules on Employee Hours Listed in U. S. Study

Twenty-six states of the union have laws on their books limiting the hours of employment which directly concern railroad employees, according to a tabulation prepared by the Labor Law Information service of the U. S. Department of Labor which covers state legislation regulating hours of labor, as of January 1, 1938. Both Pennsylvania and North Carolina have passed acts limiting employment hours in practically all occupations, including all railroad services except executive posts. The former state, by Act No. 567, has limited the employment of men to 44 hours per week and provides an eight-hour basic day; the latter passed an act in 1937 limiting hours of male employees to ten per day and 55 per week.

Twenty-four states, excluding Pennsylvania and North Carolina, have passed special laws for the limiting of hours of certain specified classes of steam railway employees. The following states have enacted laws regarding "certain railroad employees": Arizona, Arkansas, California, Colorado, Indiana, Kansas, Minnesota, Montana, Nebraska, Nevada, New Mexico, New York, North Dakota, Ohio, Oregon, South Dakota, Washington and Wis-

consin. In all but two cases, these laws set limits of 16 consecutive hours on duty, to be followed by a rest period varying from eight to ten hours. Ohio limits hours on duty to 15, while Oregon defines 14 as the maximum.

In addition, eight states have set limits on the hours of telephone and telegraph operators and dispatchers responsible for train movements; eight hours daily are specified by Arkansas, Connecticut, Maryland, Nevada, and West Virginia (Connecticut permits 12 hours daily for operators in stations kept open only during the day); nine hours are the maximum set by Oregon, while both California and Nebraska limit hours to 13 daily in towers operated only during the day and 9 hours in towers operated day and night.

Employees in train service are limited to 13 aggregate hours per day by Florida and Georgia, while "operators of steam, surface and elevated railroads" are limited to 10 consecutive hours in 12 by Michigan. Minnesota restricts engine crews to 14 consecutive hours on duty. Oregon limits all train service employees to 14 consecutive hours on duty. Finally, New York has passed a special eight-hour law for signalmen.

Politics the Road to the Poorhouse

(Continued from page 920)

panded their facilities and should be tearing up lines, co-ordinating terminals and reducing service, although they expanded their facilities less within the last ten years than in any previous decade. Although we have severely restricted immigration since the war, we have millions of unemployed, including hundreds of thousands of railroad men. Can you believe we would have had this complete revolution—or devolution—in economic developments and conditions under sound economic policies?

"There is something fundamentally wrong. What is it? The main thing is this: We have organized ourselves into a lot of pressure groups—the farm group, various business groups, various labor groups—and each group has been appealing to politicians, by legislation and otherwise, to get for it at the expense of other groups what each group should be trying to get by its own brains and effort. This gives the politicians a chance to pass and administer one kind of legislation for this group, and another kind of legislation for that group, and greatly magnifies the politician's importance and power.

"But politicians usually don't know or care anything about economics or business. They usually say and do what they believe will get them the votes of the largest groups regardless of all other consequences. Before the war our farmers, business men and labor organizations pretty generally paddled their own canoes; and production, employment, the national income and the incomes of all classes rapidly increased. Now the politicians and bureaucrats have their noses and hands in everybody's affairs. They decide what and how much the farmer may grow; and usually decide

he wants to grow too much. They are deciding how both big business and little business shall be run. They are inciting every kind of trouble between business and labor in order that they may derive political advantage from it.

"Let us look at some results. The total income of the American people averaged 80 billion dollars a year in the five years ending with 1930. It averaged only 50 billion dollars in the five years ending with 1935. It averaged sixty-three billions in the two years 1936 and 1937—much less than in the years immediately preceding the depression; and as a result of the terrific recession that began last summer it will be down again in 1938 to about 50 billions. Eight years after the beginning of the depression of the nineties, the railroads handled 54 per cent more freight business than in any year before that depression began, and the national income had increased proportionately. It is eight years since this depression began. The national income in 1929 was \$85,000,000,000. In view of all preceding experience following depressions, it should have increased in 1938 to at least 90 billion dollars; and yet this year it will be only about 50 billions—40 billions less than in view of all previous experience it should be—a difference in one year sufficient to pay the entire national debt.

"This is the principal explanation of what is the matter with the railroads. They still transport at least two-thirds of the freight produced, and it affords them 80 per cent of their gross earnings. Their freight traffic thus far in 1938 has been 40 per cent, less than in 1929. If production, construction and commerce and national income had increased only 6 per cent since 1929, railway freight earnings would have been this year at least 2 billion dollars more than they actually will be. In that case, they probably could have stood even their present high unit costs of wages, prices and taxes; would have been employing many thousands more men; would have been earning a fairly satisfactory net operating income, and making large purchases of equipment and materials affording employment to many thousands more in the manufacturing industry.

"We have had from the beginning in this country the economic system called capitalism. That system requires for its successful operation that the gross earnings of each industry or business shall be divided in accordance with certain economic laws between management, labor and capital. The most important objective of every economic system should be the maximum total production of goods—food, clothing, housing, automobiles and other necessities and luxuries. The vital question, therefore, for all of us is how management, labor and capital can best work together in order to secure the maximum practicable production. It is sometimes said that if we produce as much as we can we will have overproduction and unemployment, because the people as a whole will not be able to buy and consume all that they produce. That view has been expressed in every depression for a hundred years, but it is obviously silly. In this great country an average income per family of \$1600 a year is dis-

gracefully small; and yet that is just about what the average will be this year. A national income of one hundred billion dollars a year would provide an average of about \$3200 per family. Do you believe there is any average family that could not and would not gladly spend that much in buying necessities, comforts and luxuries?

"But you must produce that much income before you can divide it. And what have we been doing? In 1936 and 1937 we were punching each other in the jaw, hitting in the clinches and gouging out each other's eyes over the division of a national income that averaged less than \$2,000 per family—with the result that we have succeeded in reducing it to about \$1600 per family.

"You cannot have, under the system of capitalism, a large national income unless you have constantly going on a large investment of capital. It is capital that employs labor, and if you keep capital from working, it will not employ labor. We have had so many attacks on capital, so many efforts to reduce its return, that we have prevented revival of its investment; and this is the principal reason why we have not had recovery and are now back as deep in the depths of depression as at any time."

Railroads Present Their Case in Dispatcher's Hearing

The railroads' case in opposition to H. R. 4358, the six-hour-day-for-train-dispatchers bill, was presented to Representative Maloney's subcommittee of the House committee on interstate and foreign commerce on May 23 and 24. The case for the carriers followed the same lines as that presented to the Senate committee on interstate commerce, which was reported in *Railway Age* for December 11, 1937, page 847. Appearing as witnesses for the opposition were J. J. Pelley, president of the Association of American Railroads; J. Carter Fort, general solicitor of the A. A. R.; Dr. Harvey Bartle, chief medical examiner of the Pennsylvania; C. O. Peck-enpugh, general manager of the Burlington lines in Texas; Dr. Julius H. Parmelee, director of the Bureau of Railway Economics of the A. A. R., and J. M. Hood, president of the American Short Line Railroad Association.

During the hearing Representative Maloney asked Mr. Pelley whether or not he believed the bill to be preference legislation. Mr. Pelley thought that it was, and Representative Maloney agreed with him and wondered whether, if the dispatchers obtained a six-hour day, the rest of the railroad employees would not ask for the same treatment. Mr. Pelley also pointed out that if the six-hour day were to become effective, many train dispatchers who have very light tricks at the present time would have virtually nothing to do.

Dr. Parmelee gave the committee the latest financial statistics on the railroad industry, taking the opportunity to stress the fact that an industry which is in so precarious a financial condition certainly is in no position to take on any added expense such as would result from the enactment of the pending bill.

J. G. Luhrs, president of the American Train Dispatchers Association, began his

rebuttal statement just as the hearing adjourned. Chairman Maloney assured him that he could have extra time at some future date to finish his statement, but, due to the crowded condition of the committee's calendar and the nearness to adjournment, it seemed highly probable that Mr. Luhrs might have to file his statement with the clerk of the committee.

Construction

NEW YORK, NEW HAVEN & HARTFORD.—Detail plans and specifications are now being prepared and bids are expected to be solicited in the near future for the construction of a new freight house, platforms, driveways, drainage, and yardmasters' building at Harlem River, New York, to cost about \$300,000.

SOUTHERN PACIFIC.—A contract has been awarded by the U. S. Bureau of Reclamation to the Colonial Construction Company, Spokane, Wash., for the building of the diversion tunnel of the Shasta Dam, a part of the Central Valley Irrigation Project, in the Sacramento river canyon north of Redding, Cal. The tunnel, which will be approximately 1,600 ft. long, is a part of a temporary 3,000 ft. relocation of the Southern Pacific tracks to be used during the early stages of the construction of the dam and until the final relocation of about 30 miles of Southern Pacific track on higher ground has been completed. It will then be used to divert waters of the Sacramento river during the construction of the dam. The tunnel will cost approximately \$426,000.

UNION PACIFIC.—A contract for the construction of a one-story fireproof mail terminal at Council Bluffs, Iowa, has been awarded to the Truscon Steel Company at Youngstown, Ohio. This contract covers all construction except the electrical, plumbing and painting work. Another contract for the wrecking of the old building has been let to James Kazakes, Omaha, Neb. The estimated cost of this new terminal, which will be leased to the U. S. Treasury department for use by the post office department, is \$200,000.

VIRGINIAN.—The Interstate Commerce Commission, Division 4, has authorized this company to construct a branch line extending from a connection with its Guyandot River branch, opposite Cub City, W. Va., northeasterly up the Guyandot River, thence crossing the river at the mouth of Cub Creek and extending northeasterly along that creek about 8 miles.

VIRGINIAN.—A contract has been awarded to the Ross and White Company, Chicago, for the furnishing and construction of four automatic, electric engine coalers of the skip type, two cinder handling plants, and four 10-ton steel sand storage towers. Half of these facilities are to be constructed at Roanoke, Va., and the balance at Victoria, Va., for a total price of \$33,000.

Supply Trade

The General Cable Corporation, New York, has moved its Chicago office from 20 North Wacker drive, to 111 North Canal street.

R. J. Schuler has been appointed general sales representative of the Union Drawn Steel Division of the Republic Steel Corporation, Cleveland, Ohio.

The Lehigh Portland Cement Company, Allentown, Pa., has acquired the Mikolite Company, Kansas City, Kan., and is operating it as a subsidiary.

C. E. Graham, manufacturers' agent handling shipbuilding and railroad supplies, has moved his office from 61 Hudson street to 51 East 42nd street, New York City.

P. T. Oldham, who has been engaged in special sales work, has been appointed manager of special sales for the By-Products Steel Corporation, division of Lukens Steel Company, Coatesville, Pa.

OBITUARY

C. L. Schoonover, president and general manager of the Warren Tool Corporation, Warren, Ohio, died on May 22 following a heart attack. Mr. Schoonover was born in Akron, Ohio, on August 11, 1869. In 1892 he was appointed bookkeeper of the Neracher Sprinkler Company, Warren, Ohio, and following the reorganization of this company into the General Fire Extinguisher Company, he held the positions of department cashier, superintendent of engineering and construction, assistant plant manager and plant manager in charge of the pipe fabricating shop and fittings foundry. He resigned from the latter position in August, 1925, and in August 1931, was employed by the Midland Bank of Cleveland, Ohio, as trustee of the Warren Tool & Forge Co. He operated this company for 14 months as agent for the trustee and the receiver and upon the reorganization of the company into the Warren Tool Corporation in October, 1932, he was elected president and general manager, which position he held at the time of his death.

TRADE PUBLICATIONS

"SYLPHON CONTROL SYSTEM FOR RAILROAD CAR AIR CONDITIONING" is the title of a 118-page catalog which has been prepared by the Railway Equipment Division of The Fulton-Sylphon Company, Philadelphia, Pa. Contents are divided into eight sections, as follows: (1) A general description of Sylphon control and system layouts; (2) overhead heat control; (3) stepped control of floor heat; (4) cooling control for ice-activated cars; (5) cooling control for mechanical and steam-ejector refrigeration; (6) master electrical panel; (7) miscellaneous equipment, and (8) dimensional drawing of Sylphon equipment. The material in the catalog is characterized

by its large, clear diagrams and by brief but comprehensive information.

CONCRETE-SUPPORTED RAILWAY TRACK.—The Portland Cement Association, Chicago, has issued a 32-page well-illustrated catalog bearing this title, which presents a detailed discussion of concrete-supported track and its functions as compared with present-day ballasted track. The catalog begins with the present type of track structure, and discusses the track assembly, rail, rail support, track action, maintenance of the roadway, maintenance of equipment, operating efficiency, track resistance, cross-ties and ballast. Turning next to concrete-supported track, it deals with fully continuous slabs and slabs in short sections, and the factors entering into the choice of the proper type of construction to meet particular conditions. A third section of the catalog discusses and illustrates sub-ballast slabs, track with embedded ties, and the all-concrete type of support, without ties. The last section of the catalog is essentially a manual of construction methods, which discusses grading, concrete-grouted ballast and precast sub-ballast slabs.

Equipment and Supplies

LOCOMOTIVES

THE BOSTON & MAINE has ordered from the Plymouth Locomotive Works, one 35-ton gasoline-mechanical locomotive of 250 hp.

THE UNITED STATES ARMY DEPARTMENT.—Bids will be received by the contracting officer, at the office of chief of engineers, Munitions building, Washington, D. C., until June 7, for a 35-ton gasoline-mechanical drive locomotive or a Diesel-mechanical drive locomotive, for service at the Raritan Arsenal, N. J.

FREIGHT CARS

THE CORNWALL RAILROAD COMPANY contemplates buying seven hopper cars of 70 tons' capacity.

THE AMERICAN SMELTING & REFINING Co., is inquiring for 30 box cars of special design and 40 tons' capacity. These cars are for service in Mexico.

THE MISSOURI PACIFIC will repair 300 fifty-ton box cars at its De Soto, Mo., shops, and upon their completion in August will begin the construction of 100 flat cars.

PASSENGER CARS

THE MISSOURI & NORTH ARKANSAS has ordered two passenger-baggage-express rail motor cars, 75 ft. 7 in. in length and with a seating capacity of 32 passengers, from the American Car & Foundry Company.

Financial

ATLANTIC COAST LINE—LOUISVILLE & NASHVILLE.—*Securities of the Carolina, Clinchfield & Ohio.*—The Interstate Commerce Commission, Division 4, has authorized the Carolina, Clinchfield & Ohio to issue (a) a promissory note for \$14,150,000, and (b) \$14,150,000 of first and consolidated mortgage gold bonds, series B, to be pledged as collateral security for the note; the note and the bonds to be delivered to the Atlantic Coast Line and the Louisville & Nashville, lessees, to provide for the retirement of \$14,150,000 of outstanding first mortgage five per cent 30 year gold bonds, due June 1, 1938, of the Carolina, Clinchfield & Ohio. The commission has also granted these companies permission, as lessees, to assume liability, jointly and severally, for the payment of the interest on the note and the bonds, and as guarantors in respect to the note.

The commission has also authorized the Reconstruction Finance Corporation to purchase the note of the Carolina, Clinchfield & Ohio in the sum of \$14,150,000. The note will bear interest at the rate of five per cent and will mature in 10 years.

BALTIMORE & OHIO.—*Pledge of Bonds.*—The Interstate Commerce Commission, Division 4, has modified its order of May 1, 1936, so as to permit this company to pledge and repledge from time to time to and including June 30, 1940, all or any part of \$3,086,000 of its refunding and general mortgage six per cent bonds, series E, as collateral security for any short or long term loan.

CHICAGO, BURLINGTON & QUINCY.—*Bonds.*—The Interstate Commerce Commission, Division 4, has authorized this company to issue \$15,000,000 of first and refunding mortgage five per cent gold bonds, series C, all or any part thereof to be pledged and repledged from time to time as collateral security for short-term notes and as additional security for certain serial collateral-trust notes already issued. The bonds will bear interest at the rate of five per cent per year, payable semi-annually on February 1 and August 1 in each year, and will mature February 1, 1948.

CHICAGO, ROCK ISLAND & PACIFIC.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized the trustees to abandon the following lines: (1) From Muscatine, Iowa, to Nichols, 14.5 miles, and (2) from Lone Tree, Iowa, to Iowa Junction, 5.3 miles. The commission has dismissed that part of the application requesting permission to abandon the line from Nichols, Iowa, to Lone Tree, 6.2 miles.

CHICAGO, ROCK ISLAND & PACIFIC.—*Lease of Chicago, Rock Island & Gulf.*—The Brotherhood of Railway Clerks has filed with the Interstate Commerce Commission a brief of exceptions to the examiner's proposed report in this case. The labor union contends, among other things, that the examiner erred "in failing to find the need for the imposition of just and

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of the
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reasonable conditions intended for the protection of employees;" and "in concluding that the commission is without authority to impose conditions in this case intended for the protection of employees, and in recommending that the commission so hold."

COLORADO & SOUTHERN.—Abandonment & Operation.—The Interstate Commerce Commission, Division 4, has authorized this company to abandon part of its Sopris branch extending from Trinidad, Colo., to Sopris, 3.9 miles. The commission has also authorized this company to operate, under trackage rights, over (a) the line of the Atchison, Topeka & Santa Fe extending from a point near the crossing of the Colorado & Southern's line in Trinidad, Colo., southwesterly to the point of connection with the Colorado & Wyoming at Jansen, 3 miles; and over (b) the line of the Colorado & Wyoming extending from Jansen, Colo., to Long's Junction, 3.7 miles.

COLORADO & SOUTHERN.—Annual Report.—The 1937 annual report of this company shows net income after interest and other charges of \$544,351, as compared with net deficit of \$488,143 in 1936. Selected items from the consolidated income statement follow:

	1937	1936	Increase or Decrease
Average Mileage Operated	2,010.56	2,162.15	-151.59
RAILWAY OPERATING REVENUES	\$15,861,400	\$14,056,026	\$1,805,374
Maintenance of way	1,567,237	1,464,165	103,072
Maintenance of equipment	2,683,744	2,394,424	289,320
Transportation	5,556,466	5,021,602	534,864
TOTAL OPERATING EXPENSES	11,005,747	10,136,275	869,472
Operating ratio	69.39	72.11	-2.72
NET REVENUE FROM OPERATIONS	4,855,653	3,919,751	935,902
Railway tax accruals	1,234,559	1,246,159	-11,600
Railway operating income	3,621,093	2,673,591	947,502
Hire of equipment—Net Dr.	503,127	471,821	31,306
Joint facility rents—Net Dr.	312,668	312,724	-56
NET RAILWAY OPERATING INCOME	2,805,297	1,889,045	916,252
Other income	155,993	170,580	-14,587
TOTAL INCOME	2,961,291	2,059,625	901,666
Rent for leased roads	595	893	-298
Interest on funded debt	2,343,970	2,472,387	-128,417
TOTAL FIXED CHARGES	2,395,173	2,533,021	-137,848
NET INCOME	\$544,351	*\$488,143	\$1,032,494

* Deficit.

DENVER & SALT LAKE.—Bonds.—The Interstate Commerce Commission, Division 4, has authorized this company to pledge and repledge from time to time to and including June 30, 1939, as collateral security for short-term notes, \$500,000 of series A four per cent first mortgage bonds.

DENVER & SALT LAKE.—Annual Report.—The 1937 annual report of this company

shows net income after interest and other charges of \$8,690, as compared with net income of \$2,454 in 1936. Selected items from the income statement follow:

	1937	1936	Increase or Decrease
RAILWAY OPERATING REVENUES	\$2,806,256	\$2,856,948	-\$50,692
Maintenance of way	461,185	438,258	22,926
Maintenance of equipment	654,864	711,201	-56,337
Transportation	810,800	721,573	89,227
TOTAL OPERATING EXPENSES	2,022,153	1,938,668	83,485
NET REVENUE FROM OPERATIONS	784,103	918,280	-134,177
Railway tax accruals	317,276	270,548	46,728
Hire of equipment—Net Dr.	109,624	97,324	12,300
Joint facility rents	572,959	540,401	32,557
NET RAILWAY OPERATING INCOME	930,160	1,090,810	-160,649
TOTAL OPERATING AND OTHER INCOME	944,908	1,115,221	-170,312
Rent for leased roads	453,345	437,371	15,973
Interest on funded debt	472,500	664,080	-191,580
TOTAL DEDUCTIONS FROM GROSS INCOME	936,218	1,112,767	-176,548
NET INCOME	\$8,690	\$2,454	\$6,235

DENVER & RIO GRANDE WESTERN.—Annual Report.—The 1937 annual report of this road shows net deficit, after interest and other charges, of \$5,945,944, as compared with net deficit of \$4,046,440 in 1936. Selected items from the income account follow:

	1937	1936	Increase or Decrease
Average Mileage Operated	2,575.07	2,582.05	-6.98
RAILWAY OPERATING REVENUES	\$26,781,991	\$25,599,309	\$1,182,682
Maintenance of way	4,757,720	4,015,100	742,620
Maintenance of equipment	7,785,323	6,503,865	1,281,458
Transportation	10,129,391	8,800,741	1,328,649
TOTAL OPERATING EXPENSES	24,125,717	20,938,958	3,186,758
Operating ratio	90.08	81.80	8.28
NET REVENUE FROM OPERATIONS	2,656,274	4,660,350	-2,004,076
Railway tax accruals	2,179,586	2,247,427	-67,840
Hire of equipment—Net Dr.	460,066	582,641	-122,574
Joint facility rents—Net Dr.	299,958	260,468	39,490
NET RAILWAY OPERATING INCOME	Dr. 283,336	1,569,814	-1,853,151
Other income—Net Dr.	*2,156,990	*2,002,116	154,873
Available for interest (Dr.)	2,440,327	432,302	2,008,024
Interest on funded debt	3,505,617	3,614,137	-108,520
NET DEFICIT	\$5,945,944	\$4,046,440	-\$1,899,504

* Includes \$1,652,190 Interest on Underlying Bonds Matured Unpaid.

MISSOURI PACIFIC.—Annual Report.—The 1937 annual report of this company shows net deficit, after interest and other charges, of \$8,778,893, as compared with net deficit of \$8,095,236 in 1936. Selected items from the income account follow:

	1937	1936	Increase or Decrease
Average Mileage Operated	7,172.04	7,219.93	-47.89
RAILWAY OPERATING REVENUES	\$92,418,698	\$90,421,931	\$1,996,767
Maintenance of way	13,258,984	12,355,273	903,710
Maintenance of equipment	17,650,002	17,550,585	99,416
Transportation	34,039,798	31,784,185	2,255,612
TOTAL OPERATING EXPENSES	71,471,705	68,232,871	3,238,833
Operating ratio	77.33	75.46	1.87
NET REVENUE FROM OPERATIONS	20,946,993	22,189,059	-1,242,066
Railway tax accruals	4,169,731	5,054,523	-884,792
Railway operating income	16,777,262	17,134,535	-357,273
Net rents	5,773,883	6,087,216	-313,332
NET RAILWAY OPERATING INCOME	11,003,378	11,047,319	-43,940
Other income	1,470,250	2,066,959	-596,709
TOTAL INCOME	12,473,628	13,114,278	640,650
Rent for leased roads	155,013	160,379	-5,365
Interest on funded debt	17,625,030	17,630,160	-5,129
TOTAL FIXED CHARGES	21,119,648	21,106,512	13,136
NET INCOME (DEFICIT)	\$8,778,893	\$8,095,235	-\$683,657

NEW YORK, CHICAGO & ST. LOUIS.—Annual Report.—The 1937 annual report of this road shows net income, after interest and other charges, of \$2,655,561, as compared with net income of \$7,380,481 in 1936. Selected items from the income account follow:

	1937	1936	Increase or Decrease
Average Mileage Operated	1,704.73	1,704.76	-.03
RAILWAY OPERATING REVENUES	\$41,612,266	\$41,712,951	-\$100,685
Maintenance of way	4,579,337	4,119,980	459,357
Maintenance of equipment	6,474,183	5,930,636	543,546
Transportation	14,397,012	13,598,521	798,490
TOTAL OPERATING EXPENSES	28,395,481	26,637,173	1,758,308
Operating ratio	68.24	63.86	4.38
NET REVENUE FROM OPERATIONS	13,216,784	15,075,777	-1,858,993
Railway tax accruals	2,364,229	2,599,762	-235,533
Railway operating income	10,852,555	12,476,014	-1,623,459
Equipment rents—Net	2,742,486	2,852,916	110,429
Joint facility rents—Net	449,505	485,375	35,870
NET RAILWAY OPERATING INCOME	7,660,563	9,137,723	-1,477,159
TOTAL INCOME	10,096,583	14,956,239	-4,859,655
Rent for leased roads	3,531	3,531	.....
Interest on debt	7,356,824	7,499,191	-142,366
NET INCOME	\$2,655,561	\$7,380,481	-\$4,724,920

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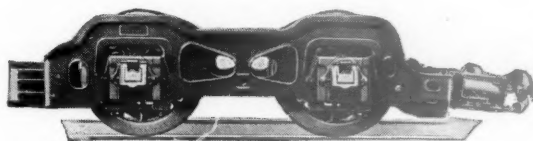


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LEHIGH VALLEY.—Abandonment.—The Interstate Commerce Commission, Division 4, has authorized this company to abandon the operation and the Lehigh Valley Rail Way to abandon the line extending from Van Etten, N. Y., to Horseheads, 19 miles. The commission has also authorized this company to operate, under trackage rights, over a line of the Erie between Waverly, N. Y., and Elmira, 18.5 miles.

PEARL RIVER.—Abandonment.—The Interstate Commerce Commission, Division 4, has authorized this company to abandon operation under trackage rights over the line of the Goodyear Yellow Pine Company extending from a connection with this company's line at Goodyear Junction, Miss., to Rowlands, 22.5 miles.

PENNSYLVANIA.—Abandonment by Grand Rapids & Indiana.—This company has applied to the Interstate Commerce Commission for authority to abandon the operation and the Grand Rapids & Indiana has applied for authority to abandon the Missaukee branch extending from Veneer Junction, Mich., to Merritt, 10.3 miles.

PERE MARQUETTE.—Annual Report.—The 1937 annual report of this company shows net income, after interest and other charges, of \$1,669,858, as compared with net income of \$2,758,003 in 1936. Selected items from the income account follow:

	1937	1936	Increase or Decrease
RAILWAY OPERATING REVENUES	\$32,229,109	\$32,459,080	-\$229,970
Maintenance of way	4,313,144	3,570,892	742,251
Maintenance of equipment	6,860,147	6,580,285	279,862
Transportation	11,762,402	11,416,637	345,765
TOTAL OPERATING EXPENSES	24,929,784	23,515,961	1,413,823
Operating ratio	77.35	72.45	4.90
NET REVENUE FROM OPERATIONS	7,299,325	8,943,118	-1,643,793
Railway tax accruals	1,644,506	2,014,947	-370,440
Railway operating income	5,654,818	6,928,171	1,273,353
Equipment rents—Net	608,981	690,065	81,083
Joint facility rents—Net	584,792	659,757	74,964
NET RAILWAY OPERATING INCOME	4,461,044	5,578,349	-1,117,304
TOTAL INCOME	5,069,679	6,165,834	-1,096,155
Rent for leased roads and equipment	74,593	69,634	4,958
Interest on debt	3,257,676	3,270,406	-12,729
NET INCOME	\$1,669,858	\$2,758,003	-\$1,088,145

PUGET SOUND & CASCADE.—Abandonment.—This road has applied to the Interstate Commerce Commission for permission to abandon its 30-mile line, extending from Mount Vernon, Wash., to Phinney Creek.

QUINCY, OMAHA & KANSAS CITY.—Abandonment of 249.7-mi. line.—This company has applied to the Interstate Com-

merce Commission for authority to abandon its entire line extending from Quincy, Ill., to Kansas City, Mo., 249.7 miles.

ST. LOUIS SOUTHWESTERN.—Bond Interest.—The St. Louis Southwestern has been authorized by the federal district court at St. Louis, to pay an installment of interest due June 1, on first mortgage bonds of the Grays Point Terminal railway company, a subsidiary. According to the railroad, failure to pay the interest would constitute a breach of the lease and default under the Grays Point mortgage, since that subsidiary is not in bankruptcy.

SEABOARD AIR LINE.—Abandonment.—Examiner Jerome K. Lyle of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it refuse to authorize the coreceivers to abandon a branch line extending from Alachua, Fla., to Bell, 23.1 miles.

SOUTHERN PACIFIC.—Abandonment.—The Interstate Commerce Commission, Division 4, has authorized this company to abandon the operation and the Southern Pacific Railroad to abandon a line extending from Caruthers, Calif., to Hardwick, 11.3 miles.

TOLEDO, PEORIA & WESTERN.—Annual Report.—The 1937 annual report of this company shows net income, after interest and other charges, of \$252,556, as compared with net income of \$273,561 in 1936. Selected items from the income account follow:

	1937	1936	Increase or Decrease
Average Mileage Operated	239.30	239.30	.....
RAILWAY OPERATING REVENUES	\$2,393,235	\$2,424,294	-\$31,059
Maintenance of way	561,437	557,062	4,375
Maintenance of equipment	177,063	153,837	23,226
Transportation	587,941	591,013	-3,072
TOTAL OPERATING EXPENSES	1,683,847	1,627,945	55,902
Operating ratio	70.36	67.15	3.21
NET REVENUE FROM OPERATIONS	709,388	796,348	-86,960
Railway tax accruals—Dr.	176,557	219,600	-43,043
Equipment rents—Net Dr.	222,557	231,492	-8,935
Joint facility rents—Net Cr.	19,623	12,874	6,749
NET RAILWAY OPERATING INCOME	329,896	358,130	-28,234
Other income	21,491	16,091	5,400
GROSS INCOME	351,387	374,221	-22,834
Interest on funded debt	73,319	87,730	-14,411
TOTAL DEDUCTIONS FROM GROSS INCOME	98,830	100,660	-1,830
NET INCOME	\$252,556	\$273,561	-\$21,005

SOUTHERN PACIFIC.—Bonds of the Texas & New Orleans.—The Interstate Commerce Commission, Division 4, has authorized the Texas & New Orleans to issue \$33,361,000 of first and refunding mortgage bonds, series A, to be exchanged for an equal amount of the company's matured and unmatured prior-lien bonds, now held by the Southern Pacific and its affiliated companies. At the same time the com-

mission deferred action, at the company's request, on that part of the application requesting authority to issue \$27,246,000 of first and refunding mortgage bonds, series A, for the purpose of paying in part open-account indebtedness due the Southern Pacific. The bonds to be issued will bear interest at the rate of 4½ per cent payable semiannually on January 1 and July 1, and are to be payable January 1, 1987.

UNION PACIFIC.—Abandonment.—This road has applied to the Interstate Commerce Commission for authority to abandon a 32.4-mile segment of its North Platte branch, located in Keith and Garden counties, Nebraska. The abandonment is necessitated by the submergence of the area by the Central Nebraska Public Power & Irrigation District's new reservoir; and a new 33.2-mile line has been constructed at distances from one to two miles from the old.

WESTERN ALLEGHENY.—Abandonment.—This company has applied to the Interstate Commerce Commission, Division 4, for authority to abandon operation over that portion of its main line extending from a connection with the Bessemer & Lake Erie at Queen Junction, Pa., to a connection with the Baltimore & Ohio at West Pittsburgh, 26.5 miles.

WILKES-BARRE & EASTERN.—Reorganization.—The Interstate Commerce Commission, Division 4, has ordered that a maximum compensation at the rate of \$5,000 per year be paid monthly to Joseph P. Jennings as trustee; that beginning December 13, 1937, maximum compensation at the rate of \$4,000 per year be paid monthly to the firm of Eilenberger & Huffman, as counsel to the trustee; and \$4,000 per year be paid monthly to Leo W. White as co-counsel for the trustee in the reorganization proceedings of this company.

Average Prices of Stocks and Bonds

	May 24	Last week	Last year
Average price of 20 representative railway stocks..	22.36	23.52	55.40
Average price of 20 representative railway bonds..	56.90	58.09	80.46

Dividends Declared

Alabama Great Southern.—Ordinary, 6 Per Cent; Preferred, 3 Per Cent, both payable June 28 to holders of record May 31.

Beech Creek.—50c, quarterly, payable July 1 to holders of record June 15.

Chestnut Hill.—75c, quarterly, payable June 4 to holders of record May 20.

Delaware & Bound Brook.—\$2.00, quarterly, payable May 20 to holders of record May 17.

Lackawanna R. R. of New Jersey.—\$1.00, quarterly, payable July 1 to holders of record June 10.

New York & Harlem Railroad.—\$2.50, semi-annually; Preferred, \$2.50, semi-annually, both payable July 1 to holders of record June 15.

Philadelphia, Germantown & Norristown.—\$1.50, payable June 4 to holders of record May 20.

Pullman, Inc.—37½c, payable June 15 to holders of record May 27.

Reading Company.—Second Preferred, 50c, quarterly, payable July 14 to holders of record June 23.

St. Louis, Rocky Mountain & Pacific.—Preferred, \$1.25, quarterly, payable June 30 to holders of record June 15. No action on common.

Virginian.—\$2.00, payable June 25 to holders of record June 11.

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Charles Carroll of Carrollton, one of the signers of the Declaration of Independence, laid the last stone of the Carrollton Viaduct on December 3rd, 1829. It is 297 feet long, 72 feet high to the base of rail above Groyn's Falls and is 26½ feet wide. About 11,000 cubic yards of masonry were used in its construction and the total cost of construction was \$58,000. * * * On December 21st, 1829, the Viaduct carried the first "excursion

trains" from Mount Clare station to the end of the line. This was the first revenue received by the Baltimore and Ohio for the conveyance of passengers.

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EXECUTIVE

Alfred Fritzche of Cleveland was elected a director on the board of the Missouri Pacific on May 23, to succeed **Darwin S. Barrett, Jr.**, treasurer of the Allegheny Corporation, who has resigned.

M. S. Connors, assistant to the vice-president of the Chesapeake & Ohio at Columbus, Ohio, has retired, effective May 16. Mr. Connors was born on June 7, 1858, at Toronto Ont. and began railway service in 1872 as a water boy on the Lake Shore & Michigan Southern (now a part of the New York Central). He became a telegraph operator and worked in that capacity, on the Lake Shore & Michigan Southern, the Philadelphia & Erie (now a part of the Pennsylvania) and for the United Pipe Line Co. (now a part of the Standard Oil Company). In 1880, he became a paymaster for the construction department of the United Pipe Line Co., and in 1881, became a train dispatcher for the Evansville & Terre Haute (now a part of the Chicago & Eastern Illinois). In 1883, he became train dispatcher of the Indianapolis division of the Cincinnati, Hamilton & Dayton (now a part of the Baltimore & Ohio), and in 1887, he was promoted to master of transportation of the same division. In December, 1889, Mr. Connors was promoted to superintendent of the Cincinnati and Indianapolis division and in May, 1890, he left the C. H. & D. to become general superintendent of the Peoria & Pekin Union. In December, 1890, he went with the C. & E. I. as a superintendent, but in December, 1891, left that road to go with the Columbus, Hocking Valley & Toledo (now the Hocking Valley) as superintendent of the Hocking Valley and Ohio River division. In March, 1899, he was promoted to general superintendent, and in May, 1910, to general manager. During the war Mr. Connors was federal manager of the Hocking Valley, and after the war was again appointed general manager. In May, 1937, he left the Hocking Valley to become assistant to the vice-president at Columbus, Ohio, on the Chesapeake & Ohio, the position he held at the time of his retirement.

William White, general manager of the Virginian, has been elected vice-president and general manager, with headquarters as before at Norfolk, Va., as reported in the *Railway Age* of May 21. Mr. White was born on February 3, 1897, at Midland Park, N. J., and entered railway service with the Erie at the age of 16 years as a clerk in the office of the auditor of freight accounts at New York. Later he served as a stenographer and clerk in the office of the superintendent of the New York, Susquehanna & Western (a subsidiary of the Erie), at Jersey City, N. J., and in March, 1916, was transferred to the office of the vice-president of the Erie at New York, where, after a short time, he was appointed

secretary to the vice-president. During the war Mr. White served with the United States Railroad Administration as secretary to the assistant director of the Eastern region and as secretary of the New



William White

York district conference committee. In March, 1920, he returned to the Erie as office manager, operating department, Ohio region, at Youngstown, Ohio, being advanced to trainmaster at Marion, Ohio, in 1923. He was transferred to Huntington, Ind., in the following year and in January, 1927, he was appointed terminal superintendent of the Mahoning division, being made superintendent of the same division in the following month. On September 16, 1929, Mr. White was further promoted to assistant general manager of the Western district of the Erie and in 1934, he was appointed assistant to the vice-president (operations) of the system, with headquarters at Cleveland, Ohio. He held the latter position until April, 1936, when he was appointed general manager of the Eastern district, Erie, with headquarters at New York. He left the Erie on February 1 of this year to become general manager of the Virginian.

OPERATING

L. Mayrisch, supervisor of merchandise service on the Southern Pacific, at San Francisco, Cal., has been appointed, effective May 16, inspector of station forces and merchandise service, with headquarters as before at San Francisco.

W. B. Kirkland, superintendent of transportation of the Southern Pacific, and superintendent of car service of the Northwestern Pacific, has been appointed also to the position of superintendent of car service of the San Diego & Arizona Eastern. Mr. Kirkland's headquarters will remain at San Francisco, Cal.

William Andrew Wood, superintendent of the Northern division of the New York, Ontario & Western, has been appointed general superintendent of this road, effective June 1. He was born on August 27, 1875, at Cornwall, Ontario, Canada, and was educated in the public schools of Middletown, N. Y., and the Montgomery, N. Y., Academy. Beginning

with the summer school vacations in 1892, he served as extra telegraph operator, continuing this practice until 1899 when he was employed regularly, serving successively as dispatchers' copier, clerk in the maintenance of way department, secretary to the general superintendent, timekeeper of transportation department, and chief clerk to the general manager. Mr. Wood was appointed superintendent of the Northern division on November 1, 1923.

TRAFFIC

A. E. Ladwig, division freight and passenger agent of the Chicago & North Western at Milwaukee, Wis., has been promoted to general freight agent at Chicago, succeeding **R. O. Small**, whose promotion to freight traffic manager was reported in the May 14 issue of the *Railway Age*. **W. H. Kreiling**, division freight agent at Chicago, has been promoted to assistant general freight and passenger agent at Milwaukee, replacing Mr. Ladwig, and **R. C. Stubbs**, chief clerk in the traffic department at Chicago, has been promoted to division freight agent relieving Mr. Kreiling. These appointments are effective June 1.

C. N. Christopherson, general agent of the Great Northern at Klamath Falls, Ore., has been transferred to Bellingham, Wash., succeeding **C. D. Thompson**, district traffic agent at that point, who retired May 15. **Harry I. Wayne**, traveling freight agent at Portland, Ore., has been promoted to general agent at Klamath Falls, to replace Mr. Christopherson. **E. A. Dye**, assistant general freight agent at Seattle, Wash., was promoted on the same date to the newly created position of assistant general freight and passenger agent at Tacoma, Wash., and **R. P. Starr**, general agent at Tacoma, was promoted to assistant general freight agent at Seattle, succeeding Mr. Dye.

Edward G. Clark, freight traffic manager of the Minneapolis, St. Paul & Sault Ste. Marie at Minneapolis, Minn., was pro-



Edward G. Clark

moted, on May 16, to the newly-created position of general traffic manager at Minneapolis, and has also been elected a director of that road. Mr. Clark was born at Howell, Mich., on May 2, 1872, and

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—Mr. Charles D. Young, Vice President
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started railway service in 1893 with the Western Transit Co., at Minneapolis as a stenographer and clerk. During 1896 and 1897, he was a stenographer on the Wisconsin Central (now part of the Soo line) at Minneapolis, and also at Milwaukee, Wis., and in September, 1897, became chief clerk in the general freight office at Minneapolis. On May 1, 1899, Mr. Clark was promoted to New England agent, with headquarters at Boston, Mass., and later served as general agent at Milwaukee. On December 1, 1902, he was promoted to assistant general freight agent at Milwaukee, and was transferred to Minneapolis in April, 1909. In April, 1916, he was promoted to general freight agent at Minneapolis, and on April 2, 1928, he was promoted to freight traffic manager, with the same headquarters, which position he has held until his promotion, on May 16, to general traffic manager.

W. W. Hale, general freight traffic manager of the Southern Pacific Lines in Texas and Louisiana (Texas & New Orleans), with headquarters at Houston, Tex., has been appointed, effective June 1, to the newly-created position of general traffic manager of the Southern Pacific, the Texas & New Orleans and the Southern Pacific Steamship Lines, with headquarters in Chicago. **C. T. Collett**, assistant freight traffic manager at Chicago, has been pro-



W. W. Hale

moted to freight traffic manager at that point, succeeding **F. H. Plaisted**, who retires on June 1.

Mr. Hale first entered railroad service on the Southern Pacific in 1901 as a clerk in the general passenger office at San Francisco, Cal. He was transferred to the office of the superintendent of transportation in 1904, and in 1917 he was promoted to eastern car service agent, with headquarters at Chicago. During federal control of the railroads Mr. Hale became assistant manager of the refrigerator department of the car service section of the United States Railroad Administration. With the termination of government control he returned to the service of the Southern Pacific as general agent at Detroit, Mich., and in April, 1929, he was promoted to assistant to the freight traffic manager, with headquarters at San Francisco. In January, 1932, he was appointed general freight agent at Portland, Ore., and on August 1,

1934, he was promoted to general freight traffic manager of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, the position he has held until his recent appointment.

Mr. Collett was born on August 8, 1888, at Pine Bluff, Ark., and entered railway



C. T. Collett

service in 1907 as a claim clerk on the St. Louis-San Francisco at St. Louis, Mo. Later he served successively as rate clerk at St. Louis, rate clerk to the assistant general freight agent at Oklahoma City, Okla., and chief clerk to the same officer. In 1912 he entered Southern Pacific service as a commercial agent at Oklahoma City, and in 1916 he was promoted to general agent at Kansas City, Mo. On January 1, 1920, Mr. Collett was appointed general agent at St. Louis, Mo., and on August 1, 1923, he was transferred to Chicago. He was promoted to assistant to the traffic manager at Chicago on July 1, 1926, and on November 1, 1929, he was advanced to assistant freight traffic manager, which position he will hold until his promotion on June 1.

Mr. Plaisted was born on June 9, 1866, at Cincinnati, Ohio, and first entered railway service as an office boy in the general freight office of the Kansas City, Fort Scott & Gulf (now a part of the St. Louis-San Francisco) at Kansas City, Mo. He served with this road in various clerical capacities until 1888, when he left to go to the Illinois Central for one year. On March 20, 1889, he went to work for the Union Pacific at Salt Lake City, Utah, and in 1892 he was promoted to traveling freight agent, with headquarters at Salt Lake City. He was transferred to San Francisco in 1895, but returned to Salt Lake City as traveling agent in 1897. Later he was promoted to district freight and passenger agent at Boise, Idaho, and in 1905 he was appointed assistant general freight agent at Salt Lake City. On January 1, 1912, Mr. Plaisted was appointed assistant to the director of traffic for both the Union Pacific and the Southern Pacific at New York, and when the joint position was abolished on February 1, 1913, he became assistant director of traffic for the Southern Pacific in that city. On June 1, 1925, he was appointed assistant to the vice-president and assistant director of

traffic at Chicago, and in 1926 he was promoted to freight traffic manager in that city, the position which he will hold until his retirement on June 1.

ENGINEERING AND SIGNALING

P. J. Bangert, signal supervisor on the Wabash at Montpelier, Ohio, was promoted, on May 1, to assistant signal engineer at Decatur, Ill., succeeding **H. J. Foal**, who retired on that date.

D. B. Jenks is appointed division engineer in charge of maintenance of way and structures of the Klamath division of the Great Northern, with headquarters at Klamath Falls, Ore., succeeding **C. B. Harding**, who has been assigned to other duties.

E. T. Barrett, division engineer on the Denver & Rio Grande Western, with headquarters at Alamosa, Col., has been promoted to the newly created position of engineer of track, with headquarters at Denver, Col., effective June 1.

James O'Dore, supervisor of telegraph and signals on the Chicago, Milwaukee, St. Paul & Pacific at Butte, Mont., has been appointed trainmaster of the Rocky Mountain division, with headquarters at Lewiston, Mont.

OBITUARY

E. B. Perkins, who retired in 1930 as general attorney of the St. Louis-Southwestern, at Dallas, Tex., died at that point on May 20.

Morris McDonald, retired president of the Maine Central, died of a heart ailment at his home in Portland, Me., on May 20 at the age of 72. Mr. McDonald was born at New Albany, Ind., on August 20, 1865, and, after a public school education, entered railway service in 1883 with the engineering corps of the Kentucky & Indiana Bridge Company (now the Kentucky & Indiana Terminal), remaining with that road until 1885. In that year he went to the Louisville, Evansville & St. Louis (now part of the Southern), serving successively until 1892 as paymaster, assistant treasurer, chief clerk to superintendent, trainmaster and superintendent of transportation. During 1893 and 1894 he was chief clerk to superintendent and assistant trainmaster on the Central of Georgia at Savannah, Ga.; and in 1896 he entered the service of the Maine Central as secretary to the general manager. In the following year he was promoted to general superintendent, remaining in that capacity until 1908, when he was further advanced to vice-president and general manager. In July, 1913, Mr. McDonald was elected president of the Maine Central and the Boston & Maine, but in February, 1914, he resigned as president of the Boston & Maine, to devote himself wholly to the interests of the Maine Central and its subsidiaries, including the Portland Terminal Company, of which he was also president. Mr. McDonald retired from active service at his own request on September 1, 1932.

10 Alco Diesel Switchers

FOR THE
NEW HAVEN

7 YEARS' EXPERIENCE justified their purchase... The New Haven has been operating an Alco Diesel Switcher since 1931... Seven years' experience has proven to the New Haven, beyond any question of doubt, the low operating and maintenance costs of the Alco Diesel in continuous service... This fleet of ten Alco Diesels operating in the New Haven's Boston Terminal will show a handsome return on the investment. And of almost equal importance will be the improved service, which in turn means more satisfied shippers.



AMERICAN LOCOMOTIVE COMPANY
36 CHURCH STREET NEW YORK N.Y.

Freight Operating Statistics of Large Steam Railways—Selected Items for the Month of March.

Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles		Car-miles		Ton-miles (thousands)			Number of road locomotives on line			
			Principal and helper	Light	Loaded (thousands)	Per cent loaded	Gross, excluding locomotives and tenders	Net, revenue and non-revenue	Serviceable			Per cent un-serviceable	
									Not stored	Stored	Un-serviceable		
New England Region:													
Boston & Albany.....	1938	374	115,229	119,571	8,415	2,670	66.1	147,271	49,371	53	4	33	36.7
	1937	374	159,628	164,575	10,594	3,568	68.9	193,324	70,510	62	7	23	25.0
Boston & Maine.....	1938	1,941	265,801	293,538	22,192	8,865	67.9	501,011	179,254	121	6	122	49.0
	1937	1,941	312,280	353,143	31,560	11,333	69.3	632,575	237,917	128	..	141	52.4
N. Y., New Hav. & Hartf.....	1938	1,997	325,299	408,033	24,042	10,906	65.1	602,542	215,119	168	18	84	31.7
	1937	2,011	373,294	466,247	28,410	13,538	69.8	714,843	270,444	184	9	84	28.9
Great Lakes Region:													
Delaware & Hudson.....	1938	830	196,201	260,542	25,816	6,561	63.6	411,509	189,464	98	131	34	12.9
	1937	830	254,716	349,480	42,261	9,384	67.6	581,031	286,701	110	113	32	12.5
Del., Lack. & Western.....	1938	983	342,755	380,988	52,492	11,289	67.1	665,285	261,614	131	5	87	39.0
	1937	983	411,248	459,416	62,586	14,043	70.1	812,120	335,359	127	16	86	37.6
Erie (incl. Chi. & Erie).....	1938	2,275	583,525	617,215	35,763	24,753	66.6	1,465,014	555,807	212	49	210	44.6
	1937	2,284	754,706	801,168	45,638	33,305	69.5	1,967,363	819,358	245	23	205	43.3
Grand Trunk Western.....	1938	1,027	232,883	233,769	2,037	5,953	61.7	363,569	124,895	73	4	45	36.9
	1937	1,027	315,198	324,505	4,923	9,084	65.2	537,914	197,842	85	..	51	37.5
Lehigh Valley.....	1938	1,289	300,110	327,728	42,031	11,467	65.4	709,284	289,496	126	3	126	49.4
	1937	1,303	397,139	433,881	52,325	14,859	68.8	905,893	401,031	144	13	117	42.7
New York Central.....	1938	10,653	2,391,687	2,522,000	138,572	77,579	59.0	5,148,901	2,022,039	775	309	395	26.7
	1937	10,790	3,177,986	3,373,662	208,634	109,533	61.6	7,102,793	3,101,604	1,001	93	398	26.7
N. Y., Chicago & St. Louis.....	1938	1,672	459,451	463,061	5,433	16,026	62.6	969,063	348,233	131	37	30	15.2
	1937	1,672	576,086	585,569	8,801	19,921	66.3	1,198,590	483,775	175	1	19	9.7
Pere Marquette.....	1938	2,081	304,666	312,458	5,484	8,017	59.7	513,794	183,219	104	27	34	20.6
	1937	2,081	437,542	455,143	5,635	12,126	63.0	759,393	290,843	123	1	27	17.9
Pittsburgh & Lake Erie.....	1938	233	50,342	52,327	25	1,974	55.9	167,976	87,898	22	20	29	40.8
	1937	234	109,192	115,357	..	4,189	59.9	348,988	193,081	40	2	19	31.1
Wabash.....	1938	2,421	519,284	529,729	10,996	16,135	64.1	951,543	325,673	133	22	136	46.7
	1937	2,434	663,755	679,968	14,271	21,048	67.4	1,217,112	452,216	148	25	122	41.4
Central Eastern Region:													
Baltimore & Ohio.....	1938	6,326	1,251,543	1,529,496	166,133	38,118	62.3	2,552,507	1,108,293	578	158	535	42.1
	1937	6,351	1,735,094	2,123,127	233,079	54,009	65.6	3,673,988	1,760,329	749	14	514	40.3
Central of New Jersey.....	1938	678	146,405	167,111	33,746	4,771	59.3	340,746	161,221	74	3	79	50.6
	1937	681	174,209	195,358	39,480	5,889	62.7	401,501	195,779	64	9	66	47.5
Chicago & Eastern Illinois.....	1938	927	162,113	162,300	2,747	4,269	65.8	262,833	105,591	48	2	55	52.4
	1937	931	205,663	207,507	3,303	5,769	66.3	370,928	170,154	54	..	48	47.1
Elgin, Joliet & Eastern.....	1938	435	85,241	86,093	1,068	1,923	60.3	140,873	65,492	51	3	29	34.9
	1937	435	133,327	136,677	2,980	3,536	60.1	280,994	143,762	66	..	17	20.5
Long Island.....	1938	390	29,520	30,252	15,626	315	50.9	24,317	9,167	27	12	9	18.8
	1937	393	34,095	35,236	17,152	348	51.8	26,684	10,335	35	5	11	21.6
Pennsylvania System.....	1938	10,023	2,339,360	2,704,937	306,311	86,716	62.0	5,751,466	2,430,217	1,086	524	737	31.4
	1937	10,028	3,542,935	4,075,368	466,426	125,524	63.3	8,522,021	3,886,045	1,582	244	526	22.4
Reading.....	1938	1,445	361,365	400,770	50,017	10,247	60.0	755,946	357,962	183	35	122	35.9
	1937	1,445	493,658	543,600	66,651	14,615	65.4	1,059,026	538,619	220	30	88	26.0
Pocahontas Region:													
Chesapeake & Ohio.....	1938	3,050	705,116	735,992	31,581	28,477	57.7	2,281,089	1,206,924	346	87	114	20.8
	1937	3,050	982,924	1,046,068	53,185	46,070	58.2	3,847,982	2,133,055	417	13	118	21.5
Norfolk & Western.....	1938	2,178	550,159	569,947	28,946	21,173	60.8	1,657,220	863,383	253	79	34	9.3
	1937	2,181	772,472	838,092	49,453	32,354	59.3	2,723,866	1,469,887	271	45	42	11.7
Southern Region:													
Atlantic Coast Line.....	1938	5,079	673,699	691,277	10,075	17,060	59.8	952,656	321,486	243	14	93	26.6
	1937	5,076	697,692	699,754	9,861	16,823	64.9	896,668	323,097	254	15	104	27.9
Central of Georgia.....	1938	1,886	250,980	253,754	3,745	5,526	69.3	311,214	117,275	95	..	26	21.5
	1937	1,886	288,686	292,326	4,420	6,842	73.8	370,193	151,054	100	..	23	18.7
Illinois Central (incl. Y. & M. V.).....	1938	6,541	1,251,877	1,258,080	23,602	33,851	63.2	2,145,055	866,019	632	20	203	23.7
	1937	6,556	1,832,001	1,848,622	36,528	44,843	64.7	2,879,447	1,231,236	670	5	193	22.2
Louisville & Nashville.....	1938	4,929	966,768	1,025,344	24,104	21,550	60.7	1,452,223	646,068	291	59	198	36.1
	1937	4,932	1,354,697	1,474,926	37,864	31,586	60.2	2,266,275	1,108,299	391	2	175	30.8
Seaboard Air Line.....	1938	4,305	556,030	579,988	5,599	15,282	63.0	895,546	302,566	207	25	71	23.4
	1937	4,295	601,677	632,842	5,567	16,063	67.8	924,715	350,764	241	..	69	22.3
Southern.....	1938	6,570	1,205,286	1,222,653	17,902	27,483	66.2	1,581,807	616,553	492	2	246	33.2
	1937	6,596	1,481,676	1,506,885	23,169	34,289	68.3	1,966,837	826,887	490	14	261	34.1
Northwestern Region:													
Chicago & North Western.....	1938	8,388	821,262	847,336	18,485	22,145	64.4	1,340,444	509,358	301	199	200	28.6
	1937	8,402	1,002,340	1,048,798	31,254	26,456	63.4	1,653,639	621,228	424	40	244	34.5
Chicago Great Western.....	1938	1,450	253,623	254,580	12,344	7,264	61.1	442,957	154,911	66	..	24	26.7
	1937	1,450	280,297	281,285	9,910	8,089	66.3	480,765	184,921	57	1	31	34.8
Chi., Milw., St. P. & Pac.....	1938	10,953	1,158,986	1,204,546	45,085	31,407	63.2	1,961,458	783,939	451	109	148	20.9
	1937	11,107	1,416,691	1,526,898	66,668	37,881	62.3	2,420,773	989,070	460	98	114	17.0
Chi., St. P., Minneap. & Om.....	1938	1,636	200,318	207,227	8,481	4,415	67.1	263,136	106,024	103	20	17	12.1
	1937	1,636	218,665	225,670	10,941	4,899	67.7	294,302	120,752	81	43	20	13.9
Great Northern.....	1938	7,975	705,627	698,629	23,400	21,498	65.0	1,349,352	522,100	285	94	164	30.2
	1937	7,997	764,322	766,551	32,611	24,612	64.9	1,535,270	633,728	330	70	173	30.2
Minneap., St. P. & S. St. M.....	1938	4,273	359,131	364,032	3,110	7,917	66.5	453,961	174,015	114	3	41	25.9
	1937	4,278	404,510	412,318	4,976	9,300	66.8	535,672	213,441	122	..	34	21.8
Northern Pacific.....	1938	6,423	597,075	622,938	29,085	19,136	72.5	1,102,154	469,113	309	46	101	22.1
	1937	6,429	737,789	814,436	42,354	23,575	68.2	1,400,041	601,089	367	12	85	18.3
Central Western Region:													
Alton.....	1938	912	204,880	213,379	1,158	4,197	58.6	273,457	90,282	69	..	30	30.3
	1937	912	221,518	229,589	2,999	5,032	62.9	320,932	131,997	78	..	19	19.6
Atch., Top. & S. Fe (incl. G.C. & S.F. & P. & S.F.).....	1938	13,512	1,602,604	1,731,816	74,508	44,248	65.5	2,697,533	1,191,588	577	94	258	27.8
	1937	13,578	1,875,324	2,027,072	95,583	52,648	64.9	3,241,475					

1938, Compared with March, 1937, for Roads with Annual Operating Revenues Above \$25,000,000

Region, road, and year	Number of freight cars on line			Percent un-serv-ice-able	Gross ton-miles per train-hour, excluding locomotives and tenders		Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1,000 gross ton-miles, including locomotives and tenders	Loco-motive-miles per locomotive-day
	Home	Foreign	Total		Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile							
New England Region:													
Boston & Albany.....1938	987	3,734	4,721	2.8	21,211	1,285	431	18.5	315	25.8	4,258	166	48.8
1937	2,334	5,167	7,501	21.3	20,904	1,217	444	19.8	322	23.7	6,082	167	65.2
Boston & Maine.....1938	8,539	6,871	15,410	13.8	26,582	1,891	677	20.2	376	27.4	2,979	101	44.7
1937	7,512	9,548	17,060	12.0	27,251	2,037	766	21.0	458	31.5	3,954	106	49.9
N. Y., New Hav. & Hartf..1938	10,322	10,128	20,450	14.8	27,997	1,883	672	19.7	355	27.6	3,475	104	56.7
1937	9,286	14,398	23,684	11.0	27,414	1,947	737	20.0	377	27.0	4,338	110	65.1
Great Lakes Region:													
Delaware & Hudson.....1938	9,146	2,688	11,834	4.6	31,187	2,110	972	28.9	530	28.8	7,364	109	37.2
1937	6,539	4,571	11,110	4.2	31,595	2,294	1,132	30.6	829	40.1	11,139	114	52.7
Del., Lack. & Western.....1938	14,399	5,656	20,055	14.9	34,019	1,965	773	23.2	442	28.4	8,585	141	69.2
1937	11,654	8,302	19,956	16.6	33,289	1,997	825	23.9	545	32.6	11,005	138	78.4
Erie (incl. Chi. & Erie)....1938	19,797	11,167	30,964	8.3	42,162	2,529	959	22.5	574	38.4	7,881	104	49.5
1937	16,116	19,601	35,717	4.4	43,116	2,630	1,095	24.6	732	42.8	11,572	105	64.3
Grand Trunk Western.....1938	5,395	4,304	9,699	17.8	31,667	1,568	539	21.0	404	31.2	3,923	100	68.6
1937	4,628	9,627	14,255	14.1	32,241	1,721	633	21.8	467	32.9	6,214	102	85.2
Lehigh Valley .....1938	11,445	7,775	19,220	11.6	44,143	2,385	973	25.2	480	29.1	7,245	118	49.6
1937	10,599	12,183	22,782	6.3	40,080	2,323	1,028	27.0	578	31.1	9,928	126	59.7
New York Central.....1938	99,668	50,447	150,115	17.2	36,808	2,167	851	26.1	432	28.1	6,123	106	65.2
1937	86,538	77,709	164,247	13.2	36,815	2,266	986	28.3	615	35.3	9,273	110	86.7
N. Y., Chicago & St. Louis.1938	8,362	6,019	14,381	4.4	40,247	2,110	758	21.7	773	56.8	6,718	89	82.0
1937	5,465	9,209	14,674	2.4	36,914	2,088	843	24.3	1,036	64.4	9,334	97	105.7
Pere Marquette .....1938	10,972	5,101	16,073	4.7	28,220	1,687	601	22.9	361	26.4	2,840	96	68.6
1937	6,996	10,036	17,032	2.8	28,168	1,738	666	24.0	595	39.4	4,508	98	107.2
Pittsburgh & Lake Erie....1938	7,886	8,169	16,055	35.0	45,895	3,337	1,746	44.5	176	7.1	12,169	99	26.1
1937	8,456	11,683	20,139	29.8	44,064	3,207	1,774	46.1	300	10.9	26,617	94	63.7
Wabash .....1938	13,743	7,128	20,871	8.1	38,101	1,846	632	20.2	499	38.5	4,339	114	63.2
1937	9,168	11,609	20,777	3.9	37,572	1,856	690	21.5	713	49.2	5,993	114	78.9
Central Eastern Region:													
Baltimore & Ohio.....1938	64,518	19,764	84,282	16.1	28,092	2,061	895	29.1	428	23.6	5,651	147	46.3
1937	51,066	33,614	84,680	14.1	27,353	2,151	1,031	32.6	648	30.3	8,941	150	63.8
Central of New Jersey.....1938	10,554	9,218	19,772	30.5	29,705	2,458	1,163	33.8	265	13.2	7,671	138	54.1
1937	9,348	11,444	20,792	25.7	28,026	2,400	1,170	33.2	309	14.8	9,274	141	69.5
Chicago & Eastern Illinois.1938	3,341	2,789	6,130	2.2	29,990	1,626	653	24.7	560	34.4	3,674	122	52.8
1937	2,215	4,537	6,752	2.8	30,681	1,822	836	29.5	796	40.7	5,896	124	70.4
Elgin, Joliet & Eastern.....1938	8,403	2,372	10,775	7.5	16,056	1,697	789	34.1	193	9.4	4,857	131	47.3
1937	8,088	8,163	16,251	4.5	16,843	2,180	1,116	40.7	295	12.1	10,666	124	81.7
Long Island .....1938	371	3,023	3,394	3.3	5,854	847	319	29.1	91	6.1	758	296	44.2
1937	364	3,565	3,929	2.2	5,992	798	309	29.7	92	6.0	849	327	49.5
Pennsylvania System .....1938	207,392	43,856	251,248	16.7	36,843	2,495	1,054	28.0	313	18.0	7,821	122	46.6
1937	172,071	70,263	242,334	17.4	35,254	2,453	1,119	31.0	504	25.7	12,501	123	70.0
Reading .....1938	26,927	9,194	36,121	15.8	26,490	2,097	993	34.9	322	15.4	7,991	135	46.4
1937	20,584	16,952	37,536	5.4	27,215	2,150	1,093	36.9	461	19.1	12,027	136	66.3
Pocahontas Region:													
Chesapeake & Ohio.....1938	50,758	9,982	60,740	2.5	49,449	3,258	1,724	42.4	662	27.0	12,765	85	49.9
1937	39,191	16,500	55,691	1.0	53,696	3,984	2,208	46.3	1,292	47.9	22,560	79	71.2
Norfolk & Western.....1938	40,478	3,948	44,426	.9	46,609	3,051	1,589	40.8	608	24.5	12,787	108	57.7
1937	27,336	6,029	33,365	1.4	51,917	3,564	1,923	45.4	1,376	51.1	21,743	104	85.9
Southern Region:													
Atlantic Coast Line.....1938	17,867	9,628	27,495	17.2	24,189	1,416	478	18.8	388	34.4	2,042	107	69.7
1937	15,897	13,742	29,639	19.9	21,523	1,289	464	19.2	358	28.7	2,053	113	67.5
Central of Georgia.....1938	5,195	2,809	8,004	1.8	23,541	1,245	469	21.2	467	31.8	2,006	121	75.5
1937	2,782	5,897	8,679	1.7	22,844	1,287	525	22.1	572	35.1	2,584	125	85.3
Illinois Central (incl. Y. & M. V.).....1938	36,302	15,314	51,616	14.1	28,180	1,719	694	25.6	550	34.0	4,271	135	52.0
1937	27,555	24,305	51,860	19.2	26,354	1,586	678	27.5	736	41.4	6,058	138	74.5
Louisville & Nashville.....1938	42,894	8,506	51,400	12.3	23,761	1,505	670	30.0	407	22.4	4,228	130	64.4
1937	29,671	12,798	42,469	15.9	24,290	1,677	820	35.1	808	38.2	7,249	135	91.5
Seaboard Air Line.....1938	11,223	5,617	16,840	2.4	27,261	1,634	552	19.8	571	45.8	2,267	115	68.4
1937	8,904	10,519	19,423	1.9	24,775	1,561	592	21.8	591	39.9	2,634	125	73.4
Southern .....1938	20,737	16,841	37,578	9.9	22,903	1,320	514	22.4	529	35.6	3,027	142	56.9
1937	19,202	24,399	43,601	11.3	21,470	1,337	562	24.1	611	37.1	4,044	153	67.1
Northwestern Region:													
Chicago & North Western..1938	39,376	15,702	55,078	7.7	26,275	1,689	642	23.0	295	20.0	1,959	123	44.1
1937	33,479	22,243	55,722	5.8	25,585	1,690	635	23.5	361	24.2	2,385	130	53.8
Chicago Great Western.....1938	2,558	3,061	5,619	2.4	32,274	1,752	613	21.3	889	68.3	3,446	131	100.3
1937	1,822	4,495	6,317	2.7	30,119	1,716	660	22.9	890	58.7	4,113	140	112.6
Chi., Milw., St. P. & Pac.1938	47,025	15,133	62,158	2.3	28,179	1,701	680	25.0	406	25.7	2,309	123	62.4
1937	39,478	22,771	62,249	2.5	27,255	1,716	701	26.1	512	31.5	2,873	132	83.1
Chi., St. P., Minneap. & Om.1938	4,760	4,493	9,253	7.1	18,309	1,320	532	24.0	384	23.8	2,091	127	53.5
1937	4,026	4,559	8,585	8.5	18,246	1,360	558	24.6	450	27.0	2,381	115	58.6
Great Northern .....1938	39,103	8,990	48,093	7.5	28,844	1,919	742	24.3	351	22.3	2,112	128	47.4
1937	35,312	12,787	48,099	7.5	29,882	2,019	834	25.7	429	25.7	2,556	128	49.9
Minneap., St. P. & S. St. M.1938	13,369	3,024	16,393	6.0	21,140	1,265	485	22.0	343	23.5	1,314	107	76.7
1937	11,446	5,274	16,720	5.0	20,842	1,333	531	23.0	407	26.6	1,610	111	89.5
Northern Pacific .....1938	31,606	4,573	36,179	9.7	29,836	1,854	789	24.5	418	23.5	2,356	144	50.3
1937	25,961	7,454	33,415	7.6	29,843	1,906	818	25.5	582	33.5	3,016	149	64.9
Central Western Region:													
Alton .....1938	2,575	6,202	8,777	12.5	31,905	1,340	443	21.5	337	26.7	3,193	126	73.5
1937	2,400	6,257	8,657	24.8	33,437	1,453	597	26.2	505	30.6	4,669	123	81.4
Atch., Top. & S. Fe (incl. G.C. & S.F. & P. & S.F.).....1938	76,132	12,926	89,058	8.5	32,171	1,688	576	20.8	335	24.6	2,195	124	66.5
1937	60,697	16,220	76,917	8.7	32,642	1,732	614	21.8	484	34.2	2,730	128	76.2
Chicago, Burl. & Quincy...1938	29,872	13,654	43,526	6.9	29,1								



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1937 Railroad Chart (with 1938 Supplement)

By **ROBERT A. BURROWS**

Statistician

SHOWS inter-relation, consolidation and capitalization of the 53 principal railroads, as of November 1, 1937. The principal companies are divided into 21 groups, including the two Canadian systems.

This chart shows the inter-relations of all voting stocks for Class I steam railroads and all important "top" and "intermediate" holding and investment companies. Coded symbols show the per cent holdings of all common and preferred stocks. Outstanding capitalization, per cent classification of gross revenues, gross revenues, operating ratio, net income, share earnings and over-all charges earned are shown. Also flow of dividends, capitalization ratio, stock symbols, receiverships, tabulation of 1937 earnings and dividend payments, miles of road operated, government loans, and leases.

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